Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

SHOUT
SHARE
IT

16W
LIBRARY
JAN 14 1939

SERVICE BULLETIN
CONTENTS CONFIDENTIAL

WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES. IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT *** THE TIME HAS COME FOR A CHANGE. AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY **** TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES, WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER
Theodore Roosevelt

Vol. XXIII No. 1 Washington, D. C. January 9, 1939

TREATMENT OF SKI TRAILS AND AREAS ON NATIONAL FORESTS

By Graeme McGowan, Santa Fe

The most meritorious feature of skiing is the tremendous latitude of terrain type over which the sport can be enjoyably practiced. To a reasonably experienced skier the only absolute requisite is depth of snow great enough to cover most of such ground obstructions as rocks, stumps, and small vegetation.

Development of ski areas in the United States has so far been unduly influenced by the Alpine "Ideal" of vast open slope. This type of ski terrain is delightful, but it does not for an instant deserve the mandatory classification so frequently given it. In twenty years of skiing I have not yet met a single proficient skier who, at times, did not deliberately select for his day's outing a run through the deep forest in preference to one in the open. Contradictorily, these proficient skiers, who freely admit their own fondness for "wood running", have rarely agreed that trees in an area used by the beginner or novice are both safe and desirable.

My own early skiing was, of necessity, almost wholly confined to the forest. Before the wave of ski popularity struck the country most of the persons who skied also learned and skied in the forests. There were no ski trails or artificial treatment of any kind, yet skiing was at least as enjoyable then as today and I am sure accidents were proportionately fewer and less serious.

The most frequent and serious ski accidents, as in the case of automobile accidents, are wholly chargeable to excessive, uncontrolled speed. Supported by actual observation, I have long held the belief that skiing is safer and beginners learn faster over terrain clearly marked by obvious physical obstructions than over open slopes or wide trails. Trees make the best of such obstructions or "danger signals."

Knowing that skiing can be enjoyably practiced over almost any kind of snow covered terrain I am emphatically of the opinion that all Forest ski developments should be planned to point toward the natural terrain and not away from it. Obviously the superwide ski trail does not suggest use of an even fairly open woodland.

In planning ski trails I have followed this principle: Trails are never straight except on gentle slopes, never wider than is necessary to check speed by "snow plowing" or by abrupt linked Christianias or Telemarks. The procedure is to stake the center line, marking the width to be cut on each stake. Ten feet over-all is the usual width with curves wider, depending on radius and grade, twenty-five feet being the maximum. Following initial cutting an inspection generally indicates need of removing a few more trees. Margins are cleaned of stumps and debris for a distance of the ten feet on each side of the trail to avoid risk of a falling skier striking a snag. It is particularly noteworthy that trails of this standard can be expanded to care for heavier traffic and safety to climbing skiers by marginal treatment, thinning, and removal of stumps, windfalls, etc. Greater width of complete clearing is never necessary. Racers generally object to the narrow, very crooked trail, since high speeds are impossible. This is true, but are not all speeds merely relative?

Skiing in America is going through a stage of growing pains. The present fad is characterized by a semi-madness for practice hill maneuvers. When a greater proportion of the public have learned their turns well enough to make mere sliding and turning commonplace actions, greater interest will be displayed in ski touring. Speed and congestion will be less of a problem. Skiing will become more of a means to an end than an end in itself. Many of our existing foot and bridle trails will receive increased ski use.

I have never been able to devise any rule-of-thumb method for planning or treating ski areas. I can only size up a new terrain with the question "How can skiing be adapted to this area?" Only as a final and far subordinate consideration do I ask the question "How can this area be adapted to skiing?"

OUR EYE AND BACKBONE

By G. K. Fenger, R. 9

Both Mr. Headley and Mr. Guthrie have sounded the clarion for the short-term guard, often referred to as either "the eye or the backbone" of the Forest Service. I do not believe there is anyone who is not heartily in favor of rediscovering or revitalizing his place in our organization. Certainly this was evident from a two to three hours' discussion at the recent Supervisors' meeting in R-9. However, before we go very far with our invitation to bring him back, it seems to me we should endeavor to work out conditions of employment that would make possible a satisfactory livelihood from the standpoint of wages, period of employment, quarters and quarters deductions, leave, compensatory time, and provide some opportunity for advancement.

We have made forward strides during the last two years in the development of a danger meter that helps to inform the administrative officer when his fire organization is needed and to what degree it must be stepped up to meet the existing danger. This, however, has not helped the short-term guard who is on a "when actually employed" basis, because to a large extent it discourages energetic prevention work since his employment is determined by the severity of the fire season and the occurrence of fires. Considering this point in connection with the fact that the guards in this Region constitute the sole Forest Service contact with a large number of our recreational visitors, we may find that our reduction in costs for manning individual positions may be offset by far greater costs in suppression work and an irreparable damage to public opinion. If employment is not continuous during a month it prohibits the possibility of earning annual and sick leave, and it offers serious difficulties in connection with quarters deductions. In my mind serious doubt is raised therefore regarding the plan to hire the guard on a "when actually employed" basis.

746356

The answer seems to be that we should employ the short-term guard on a monthly or yearly basis at a reasonable wage which provides for increases in accordance with the period of service. The period of employment should be based on the length of the fire season and opportunities for other profitable work. The service needed during the predetermined fire season should be financed from Fire Control funds, with occasional rainy or low hazardous days when the guard would be employed on other work regarded as contributed expense. Employment outside of the fire season should be financed from other regular allotments with the same provision that intermittent days on tower or at guard stations may be paid from FF or regarded as contributed expense to Fire Control; the thought being that FC and P&M contributions should approximately balance.

Under those conditions the short-term guard would have a fair opportunity to earn a living for his family. The quarters deduction policy could be applied without embarrassment. Occupancy of the quarters for the period he is not employed could be handled as a special use, with some allowance for custodial functions. If work was performed on Saturday afternoon, compensatory time would be allowed. For Sunday work, another day of rest in the following week would be authorized in accordance with Departmental Regulation #2211.

REVIEW YOUR RADIO

"Forest fire-fighters of the U. S. Forest Service have been equipped with 2300 shortwave portable radio sending and receiving sets."

Thus prosaically begins a UP news dispatch which rated exactly 2¼ inches of space on an inside page of the November 12 issue of the Asheville Citizen. The balance of the squib was equally unexciting.

In spite of the listless attitude assumed by the venerable news dispensaries toward our precious prodigy, however, there is a "success-against-odds" story of development behind it that is very definitely anything but humdrum -- at least so it seems from our layman point of view.

The chances are that most of our constabulary is relatively familiar with this bit of history but just for the sake of setting the facts in sequence, if nothing else, it may be worthwhile to suffer through a brief review of the matter anyway.

It all began with a well recognized need for some means of communication in the hinterlands which the telephone network did not plumb. Albeit the galvanized and copper web probing the 173 million acres of our widespread dominions now aggregates approximately 60,000 miles, the limitations of its utility and the necessity for its amplification are still very much with us. Hence the radio.

As a means of filling the gap, our prolific forefathers (well known as they were for having their feet solidly planted in the good earth) suggested radio -- then called wireless -- as far back as 1913. In that dim and distant past however, little practical thought was accorded it, and instead, extensive efforts were made to use the heliograph. As might be expected, use of this medium proved somewhat limited.

During this interim the radio bug was still at large and in various quarters -- New Mexico, Oregon, and Montana -- sporadic outbreaks were currently noted. This was still at a time when radio was barely germinated and, though not entirely discouraging, most of these experiments were abandoned for lack of adequate equipment.

In the end it remained for D. L. Beatty, a forest officer whose hobby was radio, to point the way with a small radio telegraph transmitter-receiver machine as late as 1927. Results obtained with this crude device proved so heartening that Beatty was commissioned to devote all his time to radio experimentation.

The first thing that had to be determined was whether or not radio communication in any form was adaptable to forest use; i.e., whether or not and to what extent green timber had an absorbing effect on radio signals, and to what degree radio "shadows" thrown by the hills and mountains would interfere with or disrupt communication.

Secondly, and far more important and difficult, it remained to be proved that radio equipment could be made light enough, strong enough, reliable enough over given distances in the forests, and with all, inexpensive enough to meet the particular needs of the Forest Service.

Meeting these problems was not so much a matter of invention as one of adapting known principles and existing equipment to the very specialized and exacting requirements of forest use.

To begin with, it was decided, for the purpose of making preliminary tests, to employ commercial portable radio transmitting-receiving apparatus; but to the surprise and consternation of the project sponsors no such equipment could be found on the market. To get the necessary test sets it was necessary to enlist the help of a radio manufacturer.

Then at long last when the equipment was received the experimenters were further dumbfounded to discover that the manufacturer's idea of portability and that of the Forest Service were different. Expecting to get an outfit that could be packed complete on one mule, it was found on delivery that the sets were portable only by truck. Before experiments could proceed, this sad state of affairs had to be remedied by considerable alteration.

Finally, after the sets had been made usable and extensive tests proving the adaptability of radio signals to forest conditions were finished Forest Officer Beatty entered the second phase of his job and began work on the first model of a portable forest transmitter-receiver. This was in January 1930.

The original machine, on completion, weighed 79 pounds and came in four packages. Electrically and mechanically this set was a good one and the transmitting range was ample. It had, however, several very apparent shortcomings.

First and foremost the set was still far too heavy and bulky. In the second place it transmitted code instead of voice. Thirdly it was not crystal controlled and had a tendency to drift off the assigned frequency. And last it required an antenna that was far too difficult to install.

Two more years were subsequently devoted to testing and out of this -- in 1932 -- grew two sets definitely on the warm side of what was wanted. The SP type of radiophone in two bundles weighed, complete, about 50 pounds and transmitted and received not only code but voice as well. The other -- Type P - weighed, complete, ten to twelve pounds, received both voice and code, but transmitted code only.

Beatty resigned from the Forest Service shortly after the original machine was finished in 1930. Not long afterward he was drowned while fishing in Puget Sound. The work of radio development has continued under the direction of A. G. Simson, in charge of the Forest Service radio laboratory at Portland.

Since 1932 each successive year has been paced by additional discoveries and improvements, corresponding disappointments and difficulties. And out of all this have grown the widely used sets of today.

Though the newspapers -- and we ourselves -- may be prone to treat them with no more than an off-hand respect these sets are, even in a purely mechanical light, one of the outstanding wonders of the radio world. Improvement must still go on, but when viewed in a utilitarian way their worth -- not only to the cause of conservation but to society as well -- already can hardly be evaluated either in dollars and cents or in words.

VALUABLE DATA CONTAINED IN REPORT ON CARSON, WALKER, AND MONO BASINS

Until his retirement from the Forest Service in June 1938, William M. Maule, Forest Supervisor of the Mono National Forest, Nevada, spent his spare time searching historical records, visiting old-timers, and tracing out on the ground the routes of the early expeditions, lines of communication, stage stations and lumbering operations in the Carson, Walker, and Mono Basins in Nevada and California. The results of this study he has compiled into a valuable report entitled "Geographic and Economic History of the Carson, Walker, and Mono Basins in Nevada and California," a copy of which has been furnished the Washington Office library. Much of the data has never been published before.

"The leading incentive of the early pioneer which led him westward to the Pacific," says Mr. Maule in the Introduction, "was to gain an opportunity to advance his condition. In this we find him successively in quest of furs, rich minerals, and to a lesser degree, fertile soils amenable to cultivation where he might establish his future home.

"Of the various leading and relatively few natural westward courses open to practical use, the Humboldt with its water and forage spanning extensive distances along its course, offered a better than average route and consequently was accepted by a vast horde of those early forerunners who were in pursuit of rigorous venture.

"After a long trek over the Great Basin in which many parties arrived at the eastern base of the Sierra Nevada, they were first confronted with that great barrier whose limited passes were practically unknown, and this they found to be a problem not easily conquered.

"Fortunately the numerous streams flowing from the east Sierra slopes led into arable valleys close along its base, and here game was plentiful and extensive meadows offered forage for stock. Important of these streams were the various branches of the Carson and Walker Rivers, with Mono Basin to the southward. Those who were in quest of agriculture remained. The greater lure, however, was for gold and silver which most of the pioneers believed to be found only beyond the Sierra Nevada. So they explored for passes which would lead them through. Some of these passes, although used by the Indians, were found to be adapted mainly for the use of these aborigines. It is the story of these passes and their early development into improved trails and crude roads that is an important part of this study.

"Not many years elapsed, however, until the mineral fields of the west side of the Sierra were well occupied and the placer deposits were becoming depleted. Further quest by certain miners led them back to the territory they originally crossed, to the promising low eastern Sierra slopes, resulting in discoveries of silver and gold second to none in America, principally the famous Comstock Lode and the lesser productive areas of Aurora and Bodie.

"This return of adventurers from the West, together with those prospectors who were still to come from the East, resulted in vast enterprises of mining, and incidentally, lumbering for use of the mines, the like of which has seldom been seen. There also entered a great stimulus toward agricultural development of the arable and fertile valleys which were near at hand to the mines. Products of those ranches were quite necessary in order to carry on. Mines, lumber, agriculture; all worked hand in hand. Vast quantities of lumber were cut and thousands of men were employed in logging. Numerous small sawmill operators 'mined' the original forests and denuded extensive watersheds of the Carson and Walker Rivers. Even in those early days certain men with vision looked with alarm upon this complete destruction of the forests.

"In order to keep apace with this somewhat ephemeral enterprise, various trans-Sierra roads were greatly improved, and a ramification of roadways soon traversed the foothills and plains of the immediate east side of the Sierra Nevada. Towns sprang up, ranches increased and a horde of stage lines came into the picture with their necessary small stations and hotels. Post offices, express stations, and telegraph lines to the various mining camps added to the transportation and communication facilities.

"This period of activity began in the late forties with a substantial upward curve into the seventies when the line started to shade downward, with the exception of agriculture which through the years has enjoyed a steady and substantial advance. The pioneering aspect has long passed on and given way to modern roads, towns, and ranches with still a reasonable activity in mining. In this transition there seems to be a need of retrospect so that those who are to come will have a fuller realization of those who have gone before and the conditions under which they labored. In the report are gathered together and presented briefly various natural and man-made features of this period."

The territory covered in the report lies within an area almost entirely east of the Sierra Nevada, contained within the watersheds of the Carson and Walker Rivers to a point where they flow into their respective lakes, and that of the Mono Lake Basin. The major portion of the material described lies within the exterior boundaries of the Mono National Forest.

MRS. BARNES EXPRESSES HER APPRECIATION

The following letter has been received by Mr. Silcox from Mrs. Barnes:

Dear Mr. Silcox:

For the part which the members of the Forest Service played in providing the beautiful plaque, and its setting, on "Barnes Butte", I am more grateful than I find words to express.

All that was needed to make the dedication ceremonies complete was provided in the presence of Mr. Barnes' understudy - successor - and close friend, Mr. Rachford.

With deep appreciation for this honor to the memory of my husband, I am

Very truly

(Signed) EDITH TALBOT BARNES

"TO HOLD THIS SOIL"

By Jno. D. Guthrie, Washington

This is the title of one of the best designed, best printed, and most interesting publications ever issued by the Government Printing Office. Not only is its format most attractive, but its text is equally interesting and intriguing. Every chapter heading challenges the reader's interest -- "The Film of Life," "New Land," "First Wests," "Two Hundred Years Later," "The Midland is Taken," "The High Plains Are Taken," "Last Wests," and "Back of Yonder."

It deals with the old, old story of the earth, of soil, of what has happened to the fertile soils of this country, but the author, Russell Lord, has made a new story of it, a dynamic story.

Physically it is 8 x 10½ inches in size, with 124 pages, good clear leaded type, wide-margined pages, striking chapter arrangement. And then the 39 photo illustrations are a story in themselves, each a striking photographic study, with titles more intriguing than the chapter headings, and then the over-all cover photo of a relief drainage map of the United States.

The story is Miscellaneous Publication No. 321 of the USDA, and the Soil Conservation Service. The author, the SCS, the Department, and the G.P.O. are congratulated on turning out such an attractive and such a readable publication. It also shows what the G.P.O. can do along modern printing lines.

A LETTER FROM DIRECTOR FECHNER

The following letter was written to Conrad L. Wirth, Representative of the Department of the Interior's CCC Advisory Council, and Fred Morrell, Representative of the Department of Agriculture's CCC Advisory Council:

Gentlemen:

I am in receipt of a detailed statement showing the participation of CCC personnel in the recent serious forest fires in California. I have read reports from both of you gentlemen covering this matter with very keen interest.

It is naturally pleasing to learn that the CCC acquitted itself in a very commendable manner in meeting this serious fire which occurred under most adverse conditions. It is especially pleasing to know that although thousands of man days were spent on fire fighting, not a single fatality occurred and so far as the record indicates not even any lost time injuries. The reports gave credit for this fine record to the fact that the enrollees as well as the supervisory personnel had had the benefit of careful and continuous instruction and training in fire fighting.

It is also clearly indicated that only thoroughly competent supervision was permitted on the fires. It seems to me a good lesson can be drawn from this experience. I congratulate all who had a part in meeting this exceptional fire hazard in such a competent manner.

Sincerely yours,

(Signed) ROBERT FECHNER
Director.

THE EDITOR DISCOVERS

On December 22 the Secretary of Agriculture approved an amendment to Regulation S-16 which makes the final paragraph of this Regulation read as follows:

"National Forest timber sold on scale shall be scaled by the Scribner Decimal C log rule, or, if the advertisement and agreement or permit so state, by the International ¼ inch log rule or by the cubic volume rule, each as used by the Forest Service."

The occasion for this modification arose as the result of the Northeastern Timber Salvage Administration's decision to adopt the International ¼ inch rule as their official rule for scaling hurricane-damaged timber. It was desirable, therefore, that the Forest Service have authority to use the same rule in determining the volume of National Forest timber sold for ultimate delivery to that Administration. It was also believed desirable that the Forest Service have the option of using the International ¼ inch rule wherever and whenever conditions warrant. The extent to which the International ¼ inch rule is substituted for the Scribner Decimal C is left to Regional Foresters to determine in accordance with local conditions. When the International Rule is used, scaling practice will have to recognize defects outside of the "right cylinder", since that rule assumes the manufacture of short length boards out of what are assumed to be slabs in scaling with Scribner Decimal C.

- - - - - - -

Boys are boys -- CCC enrollees and town lads of Strongs, Michigan, proved it again this year, and in so doing took a step forward on a new trail in reforestation. For the second consecutive year, a CCC truck from the Strongs camp picked up 20 4-H boys and took them to a planting sight on the upper Michigan Forest where the 4-H'ers were taught to plant seedlings with the bar; each boy had his own row with a marker and his name on it. Other 4-H boys, "old planters," whose survivals from the previous year were 94 percent, spruced up rows that bore their names and "trade marks." This incident is reported for the same reason a seedling is planted -- it might grow!

- - - - - - -

Appointment of Elmer A. Starch as coordinator of programs for the Department of Agriculture in the Northern Great Plains was recently announced by Secretary Wallace. His headquarters will be at Lincoln, Nebraska. For a number of years Mr. Starch served the Department as consultant while a member of the staff of the Montana State College at Bozeman. As extension specialist in that State he aided in the administration of the early programs of the Agricultural Adjustment Administration. In 1935 he was granted leave by the college to become regional director of the Farm Security Administration, returning to his college duties early in 1938. Under a cooperative arrangement he continued to serve as consultant to the Department on Northern Great Plains problems.

As coordinator, Mr. Starch will work closely with the regional directors of the Agricultural Adjustment Administration, Farm Security Administration, Bureau of Agricultural Economics, Biological Survey, Forest Service, and the Soil Conservation Service, and with officials of State agencies concerned with land and water use, particularly the land-grant colleges.

- - - - - - -

C. N. Woods has been appointed Regional Forester of the Intermountain Region, succeeding R. H. Rutledge.

- - - - - - -

In recognition of his efficient handling of the Prairie States Forestry Project, Paul H Roberts has been named Director of the Project.

1.9
F76W

LIBRARY
JAN 2 1939

SERVICE BULLETIN

CONTENTS CONFIDENTIAL

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT *** THE TIME HAS COME FOR A CHANGE AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY **** TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES. WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER
>
> Theodore Roosevelt

Vol. XXIII No.2 Washington, D. C. January 23, 1939

WE NEED MORE FORESTS

By R. F. Hammatt, Washington

Although not yet finished, the forest survey indicates that we have more forests and more forest growth than we thought we had; enough so that if care is used there should be no excuse for a timber shortage of national proportions, according to the Chief's current annual report.

Yet "we need more and better forests."

We need them, the report points out, because we have drawn on a living resource without replenishing it; because annual drain of commonly used species and sizes is still greater than their annual growth; because for 300 years we have abused a heritage and can no longer afford to pay for that abuse in terms of erosion and floods, rivers choked with silt, communities and whole counties left desolate and forlorn.

We need more and better forests in broad regions where the timber resource is already so depleted that forest products must be shipped in over long and costly hauls; where forest industries and jobs are being curtailed; where there are thousands of families that might have work in place of a public dole if forests were restored on millions of idle acres, and were improved on millions more. And this is work, the Chief says, that would increase the national income, create new wealth, become an investment in security, and "help underwrite a permanent and a more prosperous civilization."

Stressing the need for a forest policy that will protect all forest lands "against damage or destruction by fire, insects, diseases, and quick liquidation", and build up and maintain the growing stock and productivity of commercial forest lands, the report restates the plan of action proposed in the President's message of March 14, last, to the Congress. "Based on those human needs without which forest utilization is impossible and forest conservation meaningless," the essentials of this plan are, it says, (1) public (State and Federal) cooperation with private owners; (2) public regulation of forest land; (3) extension of public ownership and management.

Public cooperation has to do with forest lands in private ownership - including the best 341 million acres of commercial forest lands - and "as private responsibilities are redeemed, so also must those of the public be redeemed." Among the responsibilities discussed are: Protection from fire and insects; extension of public credits "definitely adapted to forest industries": timberland taxation, "a problem primarily within jurisdiction of State and local governments" with solution depending on "a constructive approach by private owners and mutual confidence between them and taxing authorities"; farm forests (including the Shelterbelt) and research.

Private owners have already invoked public regulation to help prevent and suppress forest fires. And as the report says, credit is due to those industrial and other owners who - as leaders - "have made real progress in forest management." But "the need for more progress is acute; a big majority of private owners are still geared to quick liquidation, and this threatens the stability - and the existence, even - of many communities."

Pointing out that public ownership and management of forest lands is now an established policy; discussing community, State, and Federal forests; suggesting by broad regions a long-range program of public acquisition for each; describing the Forest Service organization and its responsibilities; the Chief writes next of "Forests, People, and Democracy", and "The National Forests."

"Part of the responsibility of the Forest Service", his report says "is to administer and develop these public properties within which land and water are basic to such other resources and assets as timber, forage, wildlife, and recreation, and the many services they render to individuals, communities, States, and the Nation". And accomplishments (and needs) are discussed, in this part of the report, on the basis of the resources and assets mentioned.

With a new format (including an attractive cover, and two-line initials at the beginning of each major chapter) the report is printed this year in 10 point type. Essential figures are included in the text. Tables have been omitted but continuity of records is assured by publishing them separately - and making them available upon request - under the heading "Administrative Statistics, Section Z."

MORE REGARDING THE SHORT TERM EMPLOYEE

By Irwin Puphal, Coeur d'Alene

This problem of short term employment of the group that constitutes the backbone of the Forest Service is one in which I am deeply interested - for I too was once a seasonal employee. I know what it feels like to be turned loose when the first drops of rain begin to fall in September; I know what it feels like to "shack up" over winter, unable to find work, buy clothes, or seek recreation; I know, too well, the bitterness that creeps into a man's heart, the rebellion against a system that keeps a man down, the frustration that can stifle ambition.

But I had something to "stick" for; I had a future ahead of me; I could get out of the ranks of the seasonal employee into a "regular" job.

These men don't have that chance, and yet they stick; they can't work into a "regular" job, but still they come back; they know the job is short but they cherish it just the same.

Like Harvey S. Firestone, the rubber manufacturer, once said - "I have never found that pay and pay alone would either bring together or hold good men. I think it was the game itself". And who can doubt but that it is the game itself that brings our men back in the spring, just as fresh, just as eager, just as loyal after ten years of it as they were the first year in the brush?

They say that the farmers are the backbone of the Nation. If that is true then so are the seasonal employees the backbone of the Forest Service. They are the ones who cut the trails and build the roads, and pile the brush and keep the fires down. They are the ones who are responsible for 89 percent of the fires in Region 1 being Class A's this year - they whom all hell can't stop when the cry of fire is sounded - they who spit in the face of the furies unleashed, who strike and sweat and curse and strike again; they for whom hours do not count, only the game itself; they who - who get laid off when the rains come in the fall.

With all the work we have to do, and with all the help that is being given the needy, surely Uncle Sam can do something to support the most loyal group of workers he has.

As one man remarked recently, with some irony, "The Forest Service takes better care of its mules than it does of its men. It at least provides a winter range for the mules."

SAND WAVES IN PINAL CREEK

Observations on a Summer Flood

By Glenton G. Sykes, Southwestern Forest and Range Experiment Station

During the afternoon of August 1, a summer rain of high intensity occurred in the vicinity of Globe, Arizona. The storm produced much surface run-off, and Pinal Creek, the channel of which is usually dry, was soon flowing at high stage.

By visual observation at a point along the creek about 7 miles west of Globe, the velocity of the water was roughly estimated to be from 15 to 20 feet per second at the peak of the flood. The surface of the stream at that time was fairly quiet. In a few minutes, however, there were signs of much agitation; the relatively smooth, swiftly moving water was transformed into a series of standing waves--7 or 8 in number--evenly spaced, and from 4 to 5 feet in height. A little later the waves subsided; however, another series of waves appeared. Thus there was more or less of a cycle or sequence to the whole process.

By placing a stick in the ground and lining up some object on the opposite bank, it was possible to note quite accurately the movement of any given wave. In all cases the movement of the wave crest was found to be upstream, or against the current, in some instances as much as 15 feet. There was no noticeable increase in depth and certainly no reduction in velocity of the flow. This would indicate that the disturbance was not a manifestation of the "hydraulic jump."

The fact that the wave crests moved upstream may have meaning, for it seems to throw some light on processes of bottom scour. Apparently a trough develops across the stream bed. As the water pitches into the trough, it is deflected downward, which probably temporarily increases the velocity of the flow near the stream bed. This apparently results in more rapid scouring of the trough and in a part of the scoured material thus temporarily set in motion being dropped near the lower lip of the trough. In turn this elevated lip or "sand roll" deflects the flow upward and much silt is carried into the swifter upper current and away. Furthermore, as the upper lip of the trough cuts away the "sand roll" moves upstream, as was indicated by the upstream travel of the wave crests.

It is well known that the bottom velocity of streams is very much less than the surface velocity, owing largely to the frictional resistance of the channel. If it were not for other factors, this lower bottom velocity would often be insufficient to transport the heavier particles of the composite silt load. Nature overcomes this difficulty through processes that result in what is known as "turbulent flow." That is, the individual particles or filaments of water no longer move in horizontal paths, but travel more nearly in rolling or circular paths when they become agitated through obstructions in the stream channel. In flows of this nature, there is much upward motion of the water particles, and it has been found that the transporting power of a stream depends very much upon the sum of the vertical components of the motion of the water. Thus, the higher the degree of turbulence of a stream, the greater is the transporting power, for the vertical motion of the water buoys up the heavier particles and allows them to be swept along by a swiftly moving current. A rough bottom, such as a boulder-strewn river bed, induces turbulent flow of a violent character. In a stream like Pinal Creek, however, where the bed is composed chiefly of sand and fine silt, this is not the case, and judging from the observations made, it appears likely that turbulence was much assisted by the formation of sand rolls resulting from scouring of the channel.

It was further observed that the waves seemed to form from upstream down; that is, the first wave was followed by a series of waves, forming one after another downstream. Also, at the height of the disturbance, there was considerable breaking of the wave crests upstream, in which small stones and fragments of debris were clearly visible, thus indicating the magnitude of the vertical components of the velocity.

The conditions observed in Pinal Creek are believed to aid in obtaining a picture of some of the phases of the mechanics of bottom movement in silt-laden streams. The formation of a "sand roll", although primarily the result of bottom scour, evidently has considerable effect upon, and undoubtedly aids, the process of further silt movement. It may, therefore, be looked upon as constituting a definite function in the mechanics of silt movement.

The channel bed, at the point where the observations were made, was examined a few days after the flood. The river bottom was almost flat, as is usually the case with such silt-laden streams, and from high-water marks, the depth at maximum stage seems to have been about 2½ feet. The channel bottom showed little evidence of continuous aggradation, although flows carry much silt. Hence, it seems that silt deposited during any period of stream flow is moved on during some succeeding flow and that the "sand roll" is one of nature's means of silt transportation.

CCC FATALITIES

By H. R. Kylie, Washington

The number of fatalities in CCC camps under Forest Service supervision is causing concern. The following information may help field officers in analyzing and solving the local safety problem.

Statistics show that the "hidden" costs in Industry--such as the cost of investigating and reporting accidents as well as time lost by others than those directly involved, amount to 4 times the cost of physical injuries and property damage.

Compensation costs in Fatal Accidents can be high. The following are provisions of the Compensation Act of 9/7/16, amended to include CCC enrollees on 5/31/33, and based on their monthly pay plus $12 maintenance, which latter sum is fixed as representing the cost to the Government of maintaining an enrollee at camp for one month. Expenses may, if there are dependents, amount to $4,000, (increased from $3,500, effective 7/1/38), plus medical expense.

If the enrollee victim is married, for example, with no children, his widow may receive $14.70 per month (35 percent of $42, representing his pay of $30 plus $12 maintenance), until she remarries or dies, until the payments amount to $4,000. The Compensation Commission may make payment in a lump sum to the widow, at her request, but not to exceed 60 monthly payments with a total cost of $882.

Again, he may leave as dependents a father and mother, and together they would receive $16.80 per month, (20 percent of $42 to each parent), for a period of 8 years, with a total cost of $1,612.80 if wholly dependent upon the deceased and a proportionately less amount if only partially dependent.

Or he may leave as dependents,--brothers, sisters, or grandparents, and 30 percent of $42, or $12.60, may be divided monthly between dependents of this group for a period of 8 years, with a total cost of $1,209.60.

It will be noted that dependent fathers and mothers are allowed more than dependent brothers, sisters, or grandparents. This is because the last three mentioned groups usually have been dependent on the father and mother, as the enrollee usually was before entering the CCC,--in other words the parents have had the heavier load to bear. The widow receives the largest amount for the reason that the enrollee in this instance has entered into a contract of his own, with possibilities of children.

The Compensation Commission advise that there is no limit on the aggregate amount the accidental death of an employee, other than an enrollee, may cost the Government. The anticipated amount in a recent case involving a foreman with dependents is placed at over $18,000.

All CCC supervisory and facilitating personnel should be reminded of the fact that fatal accidents--in addition to the complete loss of the services of the victim, and the suffering of his family--are expensive.

With further reference to CCC enrollee fatalities in Forest Service camps, our unenviable record in this regard is presented below:

Causes	1938 (Not including Dec.)	Causes	1938 (Not including Dec.)
Cave-in	2	Forest Fire	8
Drowning	6	Machinery	1
Electricity	1	Trucks & Cars	13
Explosives	2	Unclassified (Infection from scratch)	0
Falling Objects	6		
Falls of Persons	0		39 Total

The December Summaries of Accidents have not been received as yet, but we already know of additional enrollee fatal accidents not included in the above. Note that Drownings, Falling Objects, Forest Fires, and above all TRUCKS AND CARS, are the chief offenders.

The suffering and loss of the families of these enrollees is to be considered, together with the great cost to the Government for their deaths by accident, which may be $144,000 for enrollee Forest Service accident fatalities for 1938, with indirect costs of $576,000. This subject needs the serious attention of all CCC supervisory personnel if the number of fatalities is to be reduced.

AAA APPROVES FIRE PREVENTION PROVISIONS FOR NEW ENGLAND

A special conservation program for the areas of New England and Long Island damaged by the September hurricane has been announced by Secretary of Agriculture Henry A. Wallace.

The program establishes an additional farm forestry practice supplementing those provided in the 1939 Agricultural Conservation Program. Payments for this practice will be in addition to those provided by the conservation program, and will be at the rate of $4 per acre of farm woodland which constitutes a serious fire hazard as a result of hurricane damage. The maximum payment for any farm will be $60. These payments may be earned by cleaning up woodlands to permit new growths. Performance will be supervised by County AAA Committees to assure that approved farm forestry practices are followed.

The Forest Service has warned of the danger of forest fires, as disastrous as the hurricane itself, unless the slash and debris is removed. Estimates of the Forest Service place the amount of timber blown down by the September storm at 4,000,000,000 board feet, which is eight times the average annual cut in New England. Nearly half of the farmland in the area damaged by the storm is in timber which contributes substantially to the farm income of New England. Scenic and recreational attractions of the New England forests also bring millions of dollars annually to the region in tourist business.

The area in which the new farm forestry practice applies includes: New Hampshire; Rhode Island; Massachusetts, except Barnstable and Berkshire Counties; Connecticut, except Fairfield and Litchfield Counties; Cumberland, Oxford, and York Counties in Maine; Caledonia, Chittenden, Essex, Franklin, Lameille, Orleans, Orange, Washington, Windham and Windsor Counties in Vermont; Nassau and Suffolk Counties on Long Island, New York. (Department of Agriculture Press Release)

LETTERS FROM SHORT TERM MEN

By Roy Headley, Washington

Hundreds of letters have been received in response to my article of October 17 on "The Plight of the Short Term Employee in the Forest Service". They are still coming. These letters tell little I did not already know, but to read them day after day has been a wrenching experience. One can know and deplore the hard facts about the plight of our forgotten men without feeling so deeply about it as he must when he reads hundreds of letters from the men themselves - and their wives who have written some of the most useful letters.

These letters have put upon me a deep sense of obligation. To bring the problem to public attention through a strong article in a national publication, as I planned, will be good. But it does not go far enough. In some way or other there must be found some line of action which will go much further and work faster. This is not the place to discuss the possibilities now being explored. But our short term men and all sympathetic yearlong men may be assured that no stone will be left unturned in the search for a remedy.

Many of the letters do not help me much. Strangely enough, however, I get a thrill of pride out of these very letters. Most of the replies record periods of employment and Forest Service income, say it's hard to make ends meet, and then expand on the point that the Forests would benefit from longer periods of guard employment. I do not believe this emphasis on advantage to Forest Service objectives is a matter of "yessing the boss". I take it to mean sheer loyalty to the job; a degree of loyalty which gives me a new sense of pride in the men who work in the woods. And the almost universal reserve with which men speak of privations on account of low income spells to me dignity, unwillingness to complain, and reluctance to talk about humiliations imposed by the low incomes of short term men.

Much as I may thrill over this dignity and reluctance to crab, the fact remains that a lot of good accurate, pointed crabbing would be most helpful. It will require strong medicine to obtain the $5,000,000 to $10,000,000 required annually to provide reasonable periods of employment for all short term men.

Answers to the following two questions would provide much needed ammunition; answers by short term men, their wives or by yearlong men who care to take the trouble to elicit the facts in specific cases. And the most needed answers are from the men with the shorter periods of employment. For understandable reasons, many of the letters received are from men who enjoy much more than the average length of employment.

1. How much do you spend annually on such items as:

   (a) Unreimbursed official expense (uniform, cost to you of car and horses you have to furnish, etc.).
   (b) Food.
   (c) Clothing.
   (d) Rent or shelter when not employed by Forest Service.
   (e) Life insurance, lodge and union dues.
   (f) Books, magazines, papers, education.
   (g) Recreation, luxuries, travel.
   (h) Sickness.
   (i) Payments on debts and unpaid bills.
   (j) Miscellaneous expenditures.

Take a typical year or an average for several years. If you saved anything give the amount. Give number in your family.

2. For the same year or average year, where did the money you expended come from as between:

   (a) The Forest Service.
   (b) Other employers.
   (c) Loans or credit at stores, etc.
   (d) Your own savings or other personal income.

3. In the order of their importance to you or your family, what are the most desired things you have been unable to do or buy because of lack of money?

I know these personal matters are none of my business. But if I have actual figures on how much is spent for specific items, where the money comes from, and the privations endured under the system which denies a chance for full time employment, it will greatly increase the chance to get favorable action.

I know that few people keep records of expenditures; but I am sure that some do and that others can remember enough to provide the needed information. Some of the most helpful letters have followed about the outline I have suggested.

People who have already written are invited to write again if they feel disposed to supplement what they have already furnished.

ARTICLES BY MEMBERS OF FOREST SERVICE APPEARING IN OUTSIDE PUBLICATIONS

Compiled by Washington Office Library

BRUNDAGE, F. H., On the Ochoco. [Paper presented at 29th Pacific logging congress, Tacoma, Washington, Oct. 19-21, 1938]. Timberman 39(12): 24. Oct. 1938.

CORUM, W. T. Highway fill-slope fixation methods developed by U. S. Forest service. illus. Western Construction News 13: 287-291. Aug. 1938.

EDGERTON, D. P. Community forests. illus. Junior Red Cross Jour. 15: 77-79. Nov. 1938.

GROSS, L. S. Reducing the forest fire hazard. Conn. Woodlands 3: 64-65. Nov. 1938.

HAMMATT, R. F. Reaping what the winds have sown. illus. Amer. Forests 44: 558-562. Dec. 1938.

HARPER, V. L., and LIEFELD, T. A. A new day in the naval stores industry. Jour. Forestry 36: 1128-1130. Nov. 1938.

HOPKINS, HOWARD. Recent developments in cooperative opportunities between federal and state agencies. Jour. Forestry 36: 1110-1115. Nov. 1938.

HUTCHISON, S. B. A century of lumbering in northern Idaho. pt. 3. Timberman 39(12): 34-39. Oct. 1938.

MACKINNEY, A. L., and McQUILKIN, W. E. Methods of stratification for loblolly pine seeds. tables. "Literature cited": 1127. Jour. Forestry 36: 1123-1127. Nov. 1938.

McGOVERN, J. N., and CHIDESTER, G. H. Sulphite pulps from heartwood and sapwood of several growth types of western hemlock. tables. "Literature": 37. Pacific Pulp & Paper Indus. 12(10): 34-37. Oct. 1938.

MUNNS, E. N. Chronica Botanica. Jour. Jorestry 36: 1161-1162. Nov. 1938.

PEARSON, G. A. Remodeling a forest. How Forest experiment station with help of CCC is stimulating growth of trees in the Southwest. illus. West Coast Lumberman 65(11): 33-36. Nov. 1938.

RABER, ORAN. The history of shipmast locust. "Literature cited": 1119. Jour. Forestry 36: 1116-1119. Nov. 1938.

SCHLATTER, E. J. Tractors aid selective logging in South. illus. South. Lumberman 157 (1983): 29-30. Nov. 15, 1938.

SILCOX, F. A. What's happened to the shelterbelt? illus. Natl. Nature News 2(40): 1, 6-7. Oct. 17, 1938.

SPARHAWK, W. N. (Book review) The sawmill industry in Scandinavia and Finland and the exports of sawn softwood from these countries, by Eino Saari. London and Cambridge economic service special memorandum 42. 54p. figs. London school of economics, London, 1936. Jour. Forestry 36: 1169. Nov. 1938.

STOECKELER, J. H. Soil adaptability of white spruce. table. Jour. Forestry 36: 1145-1147. Nov. 1938.

TIEMANN, H. D. Lessons in wood technology. V. The beginnings of wood. diagrs. South. Lumberman 157(1983): 49-50. Nov. 15, 1938.

WALLEY, J. M., and BROMLEY, W. S. Comments on [Sustained yield versus clear-cutting--a hypothetical case, by A. Lumberman, Jour. Forestry 36: 1138-1141.] Jour. Forestry 36: 1142-1144. Nov. 1938.

WINSLOW, C. P. [U. S. Forest products] Laboratory looks at wood. Some new developments in wood utilization. illus., diagrs. Hardwood Rec. 64(10): 7-10. Oct. 1938.

THE EDITOR DISCOVERS

President Roosevelt has approved the issuance of a new and distinctive spruce green uniform to the enrolled men of the Civilian Conservation Corps, according to a recent press release issued by the Director's office. Procurement of the new uniforms will be undertaken at once and the first uniforms issued on October 1. At that time the new uniform will be issued to enrollees working in the CCC camps located in the First, Second, and Third Corps Areas. Enrollees in other Corps Areas will continue to use the present uniform until clothing stocks, now on hand, are exhausted, when the new uniform will be issued in all areas.

The new uniform will be spruce green in color. The prescribed items include a coat, trousers, "overseas" cap, and mackinaw. When dressed in the new uniform enrollees will wear black shoes, woolen olive drab shirts and black neckties. The coat and mackinaw will be of patch-pocket, back belted style and will carry the CCC insignia -- green on a yellow ground -- on the left shoulder. The insignia will also be carried on the caps.

- - - - - - -

The Washington Office Division of Private Forestry has recently compiled data on the status of privately-owned forest lands, a summary of which follows:

Of the 202,097,000 acres of commercial forest land in the continental United States in ownership other than farm or public, Forest Service representatives have reported on 83,176,000 acres, or approximately 41 percent, concerning which they claimed to have reasonably accurate knowledge of management conditions.

Of the 83,176,000 acres, approximately 4.7 percent was reported as under intensive management-sustained yield, 9.1 percent under extensive management-sustained yield, and 20.4 percent under extensive management but not sustained yield, a total of approximately 34.2 percent under some sort of management. In addition, lands in productive condition without special effort on the part of the owners were reported to cover nearly 45 percent; a total of approximately 79.2 percent in productive condition.

On the reasonable assumption that field officers had knowledge of substantially all of the lands under some degree of management, the remaining 118,921,000 acres would logically fall under the classification of "additional lands in productive condition" or "lands not in productive condition." As the result of another inquiry, the Regional Foresters and Experiment Station Directors had already reported by types of ownership the estimated total area of commercial forest lands in "poor to non-restocking condition". With this classification, and on the basis of the above assumption, the condition of the 202,097,000 acres of commercial forest land in ownership other than farm or public, was approximately as follows:

Intensive management-sustained yield	2 %	
Extensive management-sustained yield	3.7 %	
Extensive management-not sustained-yield	8.5 %	
Total under management		14.2 %
Additional lands in productive condition		67.7 %
Total lands in productive condition		81.9 %

For the South, which has a total area of 104,311,000 acres of commercial forest land in ownership other than farm or public, 34,250,000 acres, or approximately 32.8 percent, were covered by the survey. Of the latter acreage, approximately 11 percent was reported as under intensive management-sustained yield, 18.1 percent under extensive management-sustained yield, and 23.6 percent under extensive management but not sustained yield, a total of approximately 52.7 percent under some sort of management. In addition, lands in productive condition without special effort on the part of the owners were reported to cover 31.3 percent; a total of approximately 84 percent in productive condition. Based on the assumption previously given, the condition of the 104,311,000 acres was approximated as follows:

Intensive management-sustained yield	3.6 %	
Extensive management-sustained yield	5.9 %	
Extensive management-not sustained-yield	7.8 %	
Total under management		17.3 %
Additional lands in productive condition		65.7 %
Total lands in productive condition		83 %

- - - - - - -

There are now 109 Federal (USDA) and State forest nurseries in the United States, of which 66 were established entirely by the CCC and 43 were enlargements by CCC of existing nurseries; these have an estimated annual capacity of 378,048,000 seedlings. The total of 109 includes Forest Service, States, SCS, and Biological Survey nurseries.

- - - - - - -

The Central States Forest Experiment Station has on hand a considerable number of early issues of the Journal of Forestry, the Proceedings of the Society of American Foresters, and the Forestry Quarterly. To complete its own set, the Station desires one copy each of Nos. 1, 2 and 3 of Volume II (1904) of the Forestry Quarterly. If any Station, Forest, or Region library has extra copies of these numbers, the Central States Station would appreciate receiving them and would be glad to supply its duplicates in exchange.

- - - - - - -

Information concerning fellowships and assistantships for graduate students in forestry at the University of California for the academic year 1939-40 is this year contained in the Announcement of the Division of Forestry, on pages 21 and 22. The two fellowships carry $700 and $450.

- - - - - - -

Production of a new noncrystallizing gum rosin has been announced by the Bureau of Chemistry and Soils, according to a recent Department of Agriculture press release. The new product, a natural rosin obtained from pine gum, does not crystallize in ordinary usage.

The new rosin is made only from the liquid part of the gum. Its preparation is based on a recent finding by Bureau chemists that the semi-solid mass which forms when the gum is allowed to stand contains most of the crystallizable material. This mass is removed from the liquid part by straining or filtering through a light-weight muslin cloth. The straining takes from 24 to 48 hours as it must be done entirely by gravity. Pressure filters cannot be used as the high pressure would cause the semisolid crystalline mass to liquify and mix again with the noncrystalline liquid. The straining removes the crystalline part of the resin, and also cleans the rosin by removing chips, bark, and fine suspended particles. Semiplant scale tests have shown that production of the new rosin is commercially feasible. It should, Bureau chemists say, prove especially useful in making up gloss oils, core oils, and adhesives. A public-service patent covering the new product has been applied for.

F76W

RY

EB 18 1939

SERVICE BULLETIN

CONTENTS CONFIDENTIAL

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES. IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT *** THE TIME HAS COME FOR A CHANGE. AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY *** TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES, WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER
>
> Theodore Roosevelt

Vol. XXIII No. 3 Washington, D. C. February 6, 1939

THE SOCIAL APPROACH TO FORESTRY

By Bernard Frank, Washington

The public responsibility of the Government forester has been given different interpretations at various times. One interpretation is contained in the booklet "The Lower One-Third and the Forest Service." Among the viewpoints expressed in the ensuing discussion in these pages was one stating that the main job of the forester was to grow the maximum amount of timber consistent with good silviculture and that if this were achieved the social phases would take care of themselves.

The growing of timber supplies is important. But timber growing and forest land management, with all its implications, are not necessarily synonymous. Timber production is primarily a technical job - the sphere of the silviculturist in Research and the timber management specialist in Administration. To the Supervisor of a National Forest, on the other hand, timber management is but one of a great many activities. He must necessarily think of his forest as a unit of area containing within its boundaries many kinds of resources and serving a wide variety of uses. Nor can he possibly look upon his forest in a purely technical sense. Every operation, every activity brings him in direct contact with people - lumbermen, cattlemen, businessmen, farmers, woods workers, permittees, and the general public. Thus whether we like it or not, the sheer weight of circumstances compels us to broaden our conception of forest management. We cannot and should not escape the social implications and the consequent responsibilities of administering the millions of acres of public land entrusted to our care.

One conscientious attempt to apply the social approach to the management of forest lands was the proposed operating policy worked out by the TVA Department of Forestry Relations for a tract of land around Norris Lake, Tennessee, formerly designated as the Norris Lake Forest. This was the product of the joint efforts of the management planning and administrative staffs directly concerned.

The statement starts out with a definition of forest management that in reality is the key principle:

"Forest management, in the sense it is used herein, may be defined as the planned multiple use of predominantly forested areas and all their resources for the continuous, permanent production of timber, wildlife, forest recreation, and other crops and services, in a manner consistent with the requirements for adequate soil and water control, and consistent with the needs of local industries and communities for regular supplies of raw materials, stabilized employment at decent wages and under satisfactory working conditions, and outlets for leisure time activities.

"Keeping the above definition in mind, the major objectives of management are:

"1. To apply the principle of multiple land use in the protection, optimum development, and utilization of all the resources inherent in the lands and waters of the Norris Lake Forest ......

"2. To develop the maximum number and size of permanent farm-forest communities on or adjacent to the Forest consistent with its ultimate sustained capacity to support part-time employment and its capacity to provide suitable lands and facilities for agricultural settlement.

"3. To provide a steady flow of revenue-producing products and services for the partial support of local wood-using industries and surrounding rural communities and for the enjoyment of the local population and general tourist public.

"4. To demonstrate the social value and economic feasibility of managing, on sound biological principles, predominantly forested lands and their included waters in the public interest."

In line with these objectives, the Forest was then classified into eight primary uses (areas located on large scale map) based on previous careful survey of resources, public and local requirements, and on the collective judgment of the planning and administrative staffs. Throughout, emphasis is placed upon the need for adequate soil and water control. "In no event shall any tract of land be used in such manner as to damage its value for watershed protection. On the other hand, land management practices shall aim consistently at providing the maximum possible protection against man-induced erosion and excessive run-off."

Under the section on Timber Sales, care is taken to favor local industry and to encourage employment at fair wages.

"To further the stabilization of industries in adjacent local communities, it shall be the policy of the Forest Administration to favor locally established manufacturing plants, if efficient. Independent operators will be favored, to discourage the establishment of monopolies. The payment of labor hired by cutting contractors shall be on the basis of prevailing wage rates, and shall be enforced to the full extent of the powers of the Tennessee Valley Authority in such matters."

The most significant section, however, is that pertaining to forest workers:

"In view of the fact that one of the major objectives of the Norris Lake Forest project is to develop a natural pattern for stabilized rural settlement based upon part-time employment in the permanent management of predominantly forested areas, every effort shall be made to encourage the growth of forest communities upon the Forest up to the maximum capacity of all its resources to support such communities.

"The following considerations shall apply as means of achieving this goal:

"1. The maximum number of eight-hour days' work that each part-time forest worker shall receive shall not exceed 125 days per year during any one year. This regulation shall take effect at the end of the current malarial control operations, around October 1, 1937.

"2. No forest worker shall be placed on an annual payroll status unless provision is made at the same time for replacing him by another part-time forest worker.

"3. Each forest worker shall actively be encouraged and aided in developing his leased holdings (maximum of 30 acres of good quality agricultural land) so as to increase his returns therefrom to the maximum, consistent with the needs of the forest administration for his services. For this reason the number of days' work given above under (1) shall not be insisted upon by the forest administration, but shall be considered as a maximum rather than as a minimum. There shall be no restrictions upon efforts of part-time forest workers to obtain outside employment to supplement their pay from the TVA, except that during fire seasons or other emergency periods the forest administration reserves the right to require their services whenever the occasion demands, and also that their next responsibility shall be to develop their leased holdings.

"4. Every reasonable attempt, under the restrictions imposed by budgetary and other considerations, shall be made to locate upon suitable lands of the Norris Lake Forest the additional permanent forest workers employed, but lack of housing or other facilities shall not prevent the hiring of qualified non-resident local workers when needed, provided that preference shall be given those qualified workers who state a willingness to become residents upon the Norris Lake Forest as soon as satisfactory facilities can be provided.

"5. All resident forest workers shall be so located as to have reasonable access to educational, religious, social, and trading facilities for themselves and families. Wherever possible, forest workers shall be settled in groups, with the ultimate objective of developing forest communities of sufficient size and character to justify the development of rural community facilities and utilities and the enjoyment of community life on the Forest itself.

"6. Not later than six months, dating from the approval of this policy statement by the Chief Forester, the Forest Development Section, Forest Management Planning Section, and Watershed Protection Section shall jointly work out and present to the Assistant Chief Forester for review and transmittal to the Chief Forester the estimated work load requirements, by types of projects for the Norris Lake Forest for the next five-(5) year period, for CCC camp labor and forest worker labor respectively. On the basis of such schedules, along with such other considerations as administrative costs and financial returns from the operation of the Forest, the Chief Forester shall determine the extent to which CCC camp labor may be decreased over a period and the permanent part-time forest worker force increased toward the maximum number that the Forest can economically provide work for.

"7. The rights of part-time forest workers, as well as annually rated employees, to organize and/or to join employee organizations affiliated with the general labor movement are fully recognized. It is further appreciated that the formation of labor unions among forest workers will be of considerable value to the forest administration in the joint working out of administrative problems and policies affecting such forest workers insofar as such matters fall within the direct province of the Forestry Division."

Conditions arising at the time the above policy was approved by the Chief Forester did not permit as thorough a trial as would have been desirable. Fortunately however, its more important features had already been in effect during the preceding two and a half years. Some twenty-five of the forest workers had been furnished permanent housing and agricultural plots; and all gained valuable experience in the performance of a wide variety of forestry projects including a selective logging job that left the tract in excellent condition and produced a small net return.

Undoubtedly the time is coming when the type and viewpoint of management demonstrated on the Norris Lake Forest and now in effect on several National Forests will find widespread application on all National Forests. With it is bound to come a keener appreciation and more sympathetic understanding by Forest Service personnel of the need for a social approach to forestry.

TWO PAIRS OF EYES

By J. A. Hall, California Forest and Range Experiment Station

I saw Jim the other day for the first time in several months. He had just returned from a visit to the old home town and was all bubbling over with enthusiasm. Jim is doing pretty well in the big town. After a slow start he has become pretty well entrenched in the advertising game and, at least to all outward appearances, prosperous. As nearly as I can remember, Jim's report on conditions in the old burg, which I haven't seen in 20 years, ran about as follows:

"By George, you'd hardly know the old place. You remember the old public square and the courthouse with the big wide lawn and a lot of trees? Remember how the fellows used to loaf in midsummer on the courthouse lawn? Some of them got up at five o'clock to get in a full day of loafing. If you had a little job to do you could always go over there and find at least a half dozen fellows that were out of work and willing to take on a few hours. They never seemed to have steady jobs and neither did they ever seem to be particularly hard up. Well, that's all gone. Not only that, they have made some other big improvements around there. Automobiles got so thick driving in from the country, especially on Saturday afternoon and night that they had to cut down all the trees around the outside of the square and widen the sidewalk, pave the whole thing over to the old hitchrack which was moved back about 40 feet until now they have a solid slab of concrete all the way around the place and the old yard is just a little patch. Sure looks fine.

"We used to have about three blacksmiths shops, you remember; there isn't one left, but boy the filling stations! They have got one on almost every corner and some in between corners. The place certainly looks prosperous when you see cars whizzing around and everybody apparently doing business. I talked to several of the old boys. The old sawmills are all gone, but there is a pretty good sized little factory cutting veneer for baskets and Jim Radcliff has started a plant manufacturing handles from hickory and ash. He tells me he is having trouble getting satisfactory timber. Has to go 30 or 40 miles for it but seems to be doing pretty well. The basket factory is cleaning up mostly poor stuff that was left from the old logging days. Altogether the public improvement situation seems to be pretty well taken care of. One thing I noticed particularly was the dressed up condition of the business buildings. They looked modern and clean and really city-like."

I saw Ed the other day. He had just returned from a long visit back in the old home town. I never have been able to understand Ed. He never seemed to be particularly prosperous, but he always seems to be able to do about whatever he wants. I don't even know in what business he is. I think it has something to do with handling the State owned lands, or some such public service job dealing with stuff reverted by tax delinquency. Ed's report on conditions around home ran about as follows:

"You know I had a bad experience going back home. Somehow I wish I hadn't gone. The old town has changed so much, and I think for the worse, that all my boyhood memories are disturbed. The cool comfortable shade that we used to have around the public square has all been destroyed to make room for a slab of concrete that simply blisters you in the middle of the summer. Everybody seems to be in an awful hurry but I haven't figured out that they are going anywhere. You remember the crowd of loafers we used to laugh about lolling on the courthouse lawn? They are still there but instead of working part time on odd jobs around town now they work part time for WPA and make more money. The old comfortable atmosphere is all gone. They have built some of the most awful looking, glaring filling stations on all our beautiful corners and the streets are lined with nickle catcher's stands and devices to catch the tourist trade.

"It is bad enough in town but when I got out into the country around my heart really sank. The old swimming holes just aren't there any more. The creek used to have plenty of water in it in midsummer, but I tell you that this time not only was the water low, so low there was no chance to even wade, but I could smell the stream a half mile before I got to it. Some of the local boys are beginning to wake up to the fact that the fishing is gone and are organizing to restock it because they figure that the fish have been all caught. I tried to tell them that no self respecting fish would ever inhabit a stream of the character they now have, but I don't think I made any impression. I don't believe the folks really understand why the stream is drying up and they are having so much trouble with supplies of water in their wells, and yet the answer is perfectly plain. The sawmills that we had ran out of timber and moved out. The only wood industries left are little things that have to go 30 or 40 miles for timber. The whole valley has been cut over, plowed up and is now washing down hill as fast as it can. It will take a long time to get back anything like the original conditions. No fishing, no swimming, city water supply polluted, the creek merely an open sewer."

I can't figure out how these two fellows happened to see such different things. I think I will have to make a trip back to the old town and see what it looks like myself.

MORE REGARDING A WEST POINT FOR FORESTERS

By L. P. Brown, R. 2

Reference is made to Supervisor Kreuger and Major Guthrie's comments on a West Point for Foresters. Mr. Krueger has had a lot of experience and considerable success in inducting foresters into the Service. He is in an excellent position to point out some of the failings of the present system. His proposal is attractive.

There is, however, a possible alternative that may be more profitable. In the first place it is generally considered that a Forester must have a very broad training in the natural and social sciences, as well as elemental grounding in engineering. Such training can be and is being given very successfully in many colleges. Why then is a change needed? The advantages of a West Point school for Foresters would be that every student would have the same background of fundamental training. As Mr. Krueger brings out, the students would be under the watchful eye of the training staff and the culling process would start with the freshmen group. Those who graduated would be assured of a career in some branch of Government forest work. They would fit into a niche for which they were especially prepared.

Now what would be the disadvantages of such a school? First, there is the danger of uniformity. The boys would be turned out cast in a fixed mould. Second, there would be more or less inclination, if not obligation, to keep the graduates regardless of their ability in order to get some return from the educational investment made by the Government. Third, this would be an ideal way in which to build a bureaucratic cast which might in time become unsympathetic with Mr. John Q. Public. Fourth, appointments to the school would to some extent depend on political favor. Those who were inclined or interested in becoming foresters would be discouraged if they were unable to secure appointment to the school.

As an alternative, there is the possibility of taking Junior Foresters and Junior Range Examiners through a Civil Service examination which the Commission is anxious to make more selective so as to best fit Governmental needs. At present through selection, experience, and training the Government services can build up a personnel that is close to and therefore responsive to the needs of the average citizen in forest communities, because in many instances probationary appointees will have been reared in or close to Forest areas, and will have attended forest schools because of the impetus of this background.

Might it not be more advantageous for the Government to conduct a "War College", to use the Army vernacular, for young officers who have had, say, 10 years of experience in forestry work, giving them a period of intensive training so that they can better fill their present jobs and prepare themselves for advancement to more important positions?

PURCHASE OF 290,203 ACRES APPROVED BY NATIONAL FOREST RESERVATION COMMISSION

The purchase of 290,203 acres of land situated within 49 National Forests and purchase units was approved by the National Forest Reservation Commission at its meeting on January 26. The acquisitions involving a total cost of $1,415,568 include 70,623 acres in the Appalachian area, 37,379 acres in the Southern region, and 153,626 acres in the Central and Lake States. Areas offered by present owners for National Forest purposes extend geographically from Santa Rosa Sound in western Florida to the International Boundary Waters in northern Minnesota.

The Commission also approved an initial purchase of 6,251 acres of virgin redwood in Del Norte County, California, 11,265 acres of mature ponderosa pine in central Oregon, and 5,645 acres in critical Utah watersheds.

The Commission also ratified recess action to abandon the Grand River Purchase Unit established in Iowa in 1935 but in which no purchases have been made. Lands within this unit are included in a submarginal land development program of the Soil Conservation Service.

A purchase of 4,947 acres in the Arrowrock Unit near Boise, Idaho, was approved to supplement the Boise National Forest area on the Arrowrock Reservoir watershed, thereby making possible measures to reduce sedimentation which threatens to shorten the lifetime of the Boise reclamation project.

The 11,265-acre purchase on the east slope of the Cascade Mountains adjacent to the Deschutes National Forest near Bend, Oregon, represents the initial step taken by the Commission to supplement the ponderosa pine stumpage already owned by the United States tributary to Bend. By additional purchases the Commission hopes to avert the eventual collapse of the lumber industry upon which the city depends. In advancing the proposal, Chief Forester F. A. Silcox and Robert W. Sawyer, editor of the Bend Bulletin, who was introduced by Senator McNary, explained that Federal intervention to assure sustained yield cutting operations on both public and privately owned timberlands tributary to Bend was essential to the future existence of the city.

The Commission also approved tentatively several land exchange cases and minor purchase boundary revisions.

A Commission rule that purchases would not be approved in units where less than twenty percent of the land had been purchased was waived in the Little Sciota and Symmes Creek Purchase Units in Ohio to permit the purchase of 993 acres needed to protect the Vesuvius Lake watershed. (From WO Press Release)

ARTICLES BY MEMBERS OF FOREST SERVICE APPEARING IN OUTSIDE PUBLICATIONS

Compiled by Washington Office Library

BAILEY, R. W. Mountain waters. (Condensed from address before the Western farm bureau conference). Conservation 4(5): 22-25. Sept.-Oct. 1938.
BLISS, S. Tree oaks of the Southwest. Jour. Forestry 36: 1243-1244. Dec. 1938.
BOND, W. E. Sustained yield costs and returns. illus., tables. South. Lumberman 157(1985); 129-135. Dec. 15, 1938.
BULL, H. Board-foot growth after improvement cutting. illus. South. Lumberman 157(1985); 154-156. Dec. 15, 1938.
CANFIELD, R. H. Semi-deferred grazing on black grama type ranges. Ariz. Stockman 3(9): 16-17. Nov. 1938.
CHAMPION, F. J. Plywood progress at the Forest products laboratory. Amer. Builder 60(12): 53-55. Nov. 1938.
CRAFTS, E. C. Height-volume distribution in range grasses. tables, diagr. Jour. Forestry 36: 1182-1185. Dec. 1938.
CUNO, J. B. Increment-borer and core technic. illus., diagr. Jour. Forestry 36: 1234-1236 Dec. 1938.
DAVIS, E. M. Some machining and related properties of hackberry. illus., diagr. South. Lumberman 157(1985): 140-142. Dec. 15, 1938.
DUERR, W. A., and STODDARD, C. H. Jr. Results of a commercial selective cutting in northern hemlock-hardwoods, tables, chart. Jour. Forestry 36: 1224-1230. Dec. 1938.
EBERLY, H. J. Fire protection makes progress in South. Miss. Forests and Parks 4(11/12): 5. Nov.-Dec. 1938.
------ Fire protection by southern land-owners. illus. South. Lumberman 157(1985): 135-137. Dec. 15, 1938

ELDREDGE, I. F. The timber wealth of the lower South. tables, diagr. South. Lumberman 157(1985): 115-118. Dec. 15, 1938.

HALL, R. C. Realism in forest taxation. (Condensed from "Journal of Forestry" for September). Conservation 4(5): 17-19. Sept.-Oct. 1938.

HEADLEY, R. The national forest fire situation to date. Forestry News Digest, Oct. 1938. p. 5.

HILL, R. R. A rotary volume table. Jour. Forestry 36: 1241-1242. Dec. 1938.

HINE, W. R. Some observations on planting private forest land. illus. South. Lumberman 157(1985): 150-153. Dec. 15, 1938.

HUGHES, B. O. Timber sales on the southern national forests. illus. South Lumberman 157 (1985): 137-139. Dec. 15, 1938.

KRAUCH, H. Use of protective screens in seed-pot sowing found to serve two-fold purpose. Jour. Forestry 36: 1240. Dec. 1938.

LEBARRON, R. K., and Fox, G., and Blythe, R. H. The effect of season of planting and other factors on early survival of forest plantations. tables. Jour. Forestry 36: 1211-1215. Dec. 1938.

LENTZ, G. H. Forest management of privately owned lands in the South. illus., tables. South. Lumberman 157(1985): 147-149. Dec. 15, 1938.

LITTLE, S., Jr. Relationships between vigor of resprouting and intensity of cutting in coppice stands. tables. "Literature cited": p. 1222-1223. Jour. Forestry 36: 1216-1223. Dec. 1938.

MEAGHER, G. S. Forest cover retards snow melting. table. Jour. Forestry 36: 1209-1210. Dec. 1938.

MUNNS, E. N. Land treatment and floods. (Condensed from "Soil Conservation" for August). Conservation 4(6): 45-48. Nov.-Dec. 1938.

NELSON, R. W. Assessment principles and terminology. Chicago, National association of assessing officers. 1937. 166p. (Reviewed in Jour .Political Econ. 46(4): 604-605. Aug. 1938.

PAUL, B. H. Quality control in silvicultural management. Jour. Forestry 36: 1240-1241 Dec. 1938.

------ When to prune southern pine. illus. diagr., chart. South. Lumberman 157(1985): 143-145. Dec. 15, 1938.

STAMM, A. J., and Seborg, R. M. Anti-shrunk treatment of wood with synthetic resin-forming materials and its application in making a superior plywood. illus., tables, chart. South. Lumberman 157(1985): 157-162. Dec. 15, 1938.

TIEMANN, H. D. Lessons in wood technology. VI. The formation of wood. How the root and stem function. diagrs. South. Lumberman 157(1985): 221-222. Dec. 15, 1938.

WINSLOW, C. P. Developments in plywood. illus. Timberman 40(1): 37-38. Nov. 1938. Recent developments affecting hardwood utilization. Wood Products 43(11): 17-18, 22.

MISS LULA STEWART RETIRES

By J. N. Witherow, Washington

Miss Lula Stewart of the Division of Engineering in the Washington Office retires from the Forest Service next month. In this connection a bit of personal history might be of interest.

Miss Stewart was detailed in May, 1904, to the then Bureau of Forestry from the Division of Publications of the Department of Agriculture after having worked in that office for three years. Her first duties in the Forest Service were in the newly created Section of Mensuration and Computations under Mr. John Foley, then Secretary to Chief Forester Pinchot. The experience thus gained was in no small degree helpful in the work assigned her when she was transferred in 1905 to the Section of Drafting which at that time was under the Associate Forester's Office. The Chiefs directly responsible for the Section of Drafting during these early years were successively, Capt. Adams, Chief of Operation; William L. Hall, Chief of Lands; and Fred G. Plummer, Chief Geographer.

Under the guidance of the Chief Draftsman, C. A. Kolb, Miss Stewart was placed in charge of the files of the drafting room, thus creating a depository of maps and charts and other statistical data, which files, as they grew larger and more comprehensive, were used by the entire Service. From this time on, Miss Stewart's work grew in volume and importance, not only in regard to her files but along many other lines of drafting work, thus adding greatly to her responsibilities. A high order of accomplishment was exemplified in Miss Stewart's career in the Forest Service. She not only possessed the necessary knowledge for the position she held but she never lost an opportunity to enhance her value to the office, which included loyalty, courtesy and helpfulness to others.

Miss Stewart will be greatly missed, but instead of "resting on her laurels" she will continue to live a busy and useful life and it is hoped a happy one for many years to come.

MOONSHINE AND SEED GERMINATION

By M. A. Huberman, Washington

We have often heard that the phase of the moon has a marked influence on a good many things, such as the interval between haircuts, the rate of growth of potatoes and other phenomena which affect foresters as well as other human beings.

S. P. Langmack of the Washington Office Translation Unit has just translated an article entitled "The Influence of the Phases of the Moon upon the Germination of Spruce Seeds and the early Stage in the Development of Young Spruce" which appeared in a recent German forestry publication. The conclusion of this interesting article is somewhat along the following lines: that the current experiments did not show that the moon influences germination or early development, but that this does not mean that the moon exerts no influence at all upon the growth of the plants. The article does purport to prove that a possible but not yet discovered influence of the moon upon the growth of spruce is so insignificant that for practical purposes it deserves no regard at all in comparison with the already known factors of growth.

Our seed, nursery, and planting men therefore can again regard the moon from the customary viewpoints.

THE EDITOR DISCOVERS

State and private agencies cooperating in forest fire control will be able to increase their use of radio in forest protection activities as a result of a recent ruling by the Federal Communications Commission. The new ruling gives State conservation departments and other forestry organizations three new frequencies in the 2000 to 3000 kilocycle band for use in forest fire control. The new channels are allocated to avoid conflict with police, government, ship, coastal harbor, aviation, and relay broadcasting stations. Although the Forest Service has used this band extensively, this is the first time that frequencies in it have been assigned to non-government forestry communication. Ten ultra-high frequencies in the 30,000 to 40,000 band had been the only ones previously allocated to the State and private agencies with a single high frequency of 2726 kilocycles available for emergency service, but the useful range of the ultra high frequencies was limited to the horizon and therefore of restricted service in some forest areas.

- - - - - - -

Region 10 reports that the restoration of Indian totem poles occupying the burial grounds and the inhabited and abandoned Indian villages throughout the Tongass Forest is moving forward. This work has met with great popular approval. Archaeologists and others interested in Indian affairs have advocated, for twenty years, that some public agency attempt this job, but the general opinion prevailed that no "means of appeasement" of the Indians was possible. By setting up the restoration job as one for Indian employment exclusively, the Forest Service has been able to gain the consent of individual, family, and tribal owners to a dedication of these poles to the public as historical monuments.

As a part of the totem project, a huge log and puncheon Indian community house is being restored. This building is an excellent example of native art and hence of great historical interest. Thirty-six thousand feet of split and hand-chipped cedar timbers are going into the job to replace decayed material. The work is being carried on by the CCC, the WPA, and the Forest Service.

- - - - - - -

Net receipts from the National Forests for the period July 1 to December 31, 1938, totaled $2,127,206, a decrease of $164,029 as compared with the same period in 1937. Timber sales brought in $1,446,856, a decrease of $183,998; grazing receipts totaled $513,022, an increase of $31,466; special uses brought in $117,220, a decrease of $14,781; forest products sales yielded $18,842, a decrease of $3,750; and water power brought in $10,818, an increase of $5,736.

Total receipts by Regions were:

R-1 - $177,029.31, a decrease of $30,631.84
R-2 - $347,246.97, " " " $32,536.93
R-3 - $208,575.57, " " " $51,677.25
R-4 - $218,467.38, " " " $ 8,794.65
R-5 - $302,679.62, " " " $27,711.47
R-6 - $502,641.56, an increase of $ 9,404.83
R-7 - $ 31,289.37, a decrease of $30,278.01
R-8 - $271,505.39, an increase of $40,260.48
R-9 - $ 42,084.75, a decrease of $26,083.18
R-10 - $ 25,686.45, " " " $ 5,980.70

- - - - - - -

The average survival of all trees and shrubs planted by the Prairie States Forestry Project during the year 1938 was 61 percent. This report is based on a detailed examination of 5 percent of the plantings made last fall. In general, the survivals for the Project are slightly lower than last year, due principally to severe injury from insects. Grasshoppers were the major single cause of losses.

Losses due to covering of and mechanical injury to trees because of careless cultivation and losses from weed competition, as a result of inadequate cultivation, were higher than before, since this phase of work was taken over by farmers.

Among individual species, best survival was reported from sumac, 89 percent; chokecherry, 88 percent; honey locust, 83 percent; ash, 80 percent; lilac and honeysuckle, 76 percent; wild plum, 75 percent; caragana, 67 percent; American elm, 69 percent; cottonwood, 67 percent; hackberry, 66 percent; red cedar, 61 percent; seedling apricot and Kentucky coffeetree, 59 percent; black locust, 58 percent; and Chinese elm, 56 percent.

Poorest survival was reported from burr oak, 20 percent (mostly direct seeding); ponderosa pine, 27 percent; tamarix, 27 percent; desert willow, walnut and persimmon, 33 percent.

Survivals were and will probably always be higher in the northern States because of the shorter growing season, fewer cultivations being required, and the shorter period of insect depredation.

- - - - - - -

Daniel Freeman's 160-acre farm five miles northwest of Beatrice, Nebraska, has been acquired by the United States and formally designated as the Homestead National Monument of America, according to a recent Department of the Interior press release. Daniel Freeman, physician, farmer, Union soldier from Ohio, filed the first claim under the Homestead Law signed by President Lincoln in 1862, just five minutes after midnight January 1, 1863, the day the law became effective. He thus became the first of more than one million homesteaders who developed the great Middle West.

Obtaining a furlough from the Union army for the purpose of filing a claim under the new law, Freeman, due to leave for his regiment and fearful that his furlough would expire before he could act, persuaded the land agent at Brownville, Nebraska, to open his office five minutes after the law became effective. This was all right with the hundreds of other land seekers who had gathered in the town on New Year's Eve along with Freeman.

In providing for the establishment of a National Monument at the site of the Freeman farm, Congress specified that the project should include restoration of a typical Nebraska homesteader's cabin and restoration of the land as nearly as possible to its condition at the time it was homesteaded.

- - - - - - -

Miss Etta Schneider, Associate in Audio-Visual Education of Teachers College, Columbia University, writes the Forest Service as follows:

"We have just returned the copy of The Tree of Life which you recently sent to Mr. Heimlich of BUILDING AMERICA. I want to tell you how much I enjoyed the film and what a favorable reaction was expressed by the teachers and supervisors who attended the showing.

"The film was very well organized and carried much evidence in favor of the message it brings. I hope it will aid you in your campaign for forest conservation.

"The title will be in the next supplement of the Educational Film Catalog together with reviews which will shortly appear in a few educational journals. I shall be glad to let you know when such reviews are published. I am quite sure that they will be favorable. Unlike many of the United States Government films of the past, The Tree of Life is definitely suitable for junior and senior high school students."

- - - - - - -

Sunset magazine has recently published a very attractive and unusual "Barbecue Book". Designed for the barbecue enthusiast, whether he's a died-in-the-wool veteran or a neophyte, the book contains helpful suggestions on where to locate the barbecue, various types of construction suitable for the purpose, barbecue cookery, etc. Its 64 pages are profusely illustrated with sketches showing different types of barbecue and outdoor fireplace construction, accessories and gadgets, and many other ideas on the subject. The book is bound in a redwood board cover and is printed on sepia paper in brown ink. The Forest Service office in San Francisco cooperated with the publishers in the preparation of the book. Copies can be obtained from Sunset Magazine, San Francisco, California, for $1.00 each.

- - - - - - -

Word has been received in Washington of the death of Philmore E. Ackerman of the Allegheny Forest Experiment Station on January 14. He died in the Jefferson Hospital at Philadelphia, where he had been under treatment for about three weeks. Mr. Ackerman entered the Forest Service as Forest Ranger in 1929 and served successively on the Choctawhatchee, Kisatchie, Pisgah, and Cherokee National Forests in Region 8 until 1932, when he was selected to take administrative charge of the Kane Experimental Forest of the Allegheny Experiment Station.

FORTY YEARS OF PROGRESS!

"The gigantic German who was head of the Woods and Forests *** had a habit of flitting bat-like without warning from one place to another, and turning up where he was least looked for. His theory was that sudden visitations, the discovery of shortcomings and a word of mouth upbraiding of a subordinate were infinitely better than the slow processes of correspondence ***. As he explained it: 'If I only talk to my boys like a Dutch uncle, dey say, 'It was only dot damned old Muller' and dey do better next dime. But if my fat-head clerk he write and say dot Muller der Inspector-General fail to onderstand and is much annoyed ***. I tell you der big brass-hat pizness does not make der trees grow!

"'I went to Headquarters to make up my rebort last month. I haf written half--ho! ho! and der rest I haf leaved to my clerks and come out for a walk. Der Government is mad about dose reborts!

"'If I find you, Gisborne, sitting in your bungalow und hatching reborts to me about der blantations instead of riding der blantations, I will dransfer you to der middle of der Bikaneer Desert to reforest him. I am sick of reborts und chewing paper when we should do our work.'"

Rudyard Kipling
Mowgli Stories 1894.

6U

SERVICE BULLETIN

CONTENTS CONFIDENTIAL

WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES. IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT. . . . THE TIME HAS COME FOR A CHANGE. AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY . . . TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES, WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER.

Theodore Roosevelt

Vol. XXIII No. 4 Washington, D. C. February 20, 1939

ALADDIN'S LAMP FOUND IN A COMMUNITY FOREST

By Ernest O. Buhler, Washington

FEB 25 1939 ☆
U.S. Department of Agriculture

An amazing discovery has been made in Onondaga County, New York. A Community Forester has found a formula, a veritable Aladdin's Lamp which gives him more money than his fondest dreams ten years ago would have anticipated. Reduced to its plainest form, the secret of this formula rests on the age old fact, that if you fulfill the wish of the people they will follow you.

One becomes particularly puzzled when shown the fine park system in Onondago County, New York. It has everything that an up-to-date park system should contain and still the Onondaga County supervisors are willing and glad to spend approximately $80,000 a year for the maintenance, improvement and enlargement, of a 2,200 acre community forest. Why should they so freely lavish this money on a Community Forest when the park system should be adequate?

Being curious to know why this should be, I made an automobile trip over the area with Nelson C. Brown, the father of the forest, and Marshall Higgins, the executive secretary and forester of the Onondaga County Park Board.

We first visited an abandoned farmhouse which had been remodeled into a lodge. It was complete with kitchen, living room, easy chairs, fireplace, sun porches, etc. Outside was a shuffleboard, horseshoe ground, giant checkerboard, swings, teeter-totters, and a magnificient view of the countryside. Back of the recreation ground were two thousand acres of young pine seedlings growing into pine trees for the generations to come. This lodge, Mr. Higgins said, is reserved for the use of Sunday schools, Christian Endeavor Societies, Women's Clubs, church societies, family reunions, etc. That makes many organizations users and boosters for the forest. They pay $1 for the use of the entire lodge for one day -- not $1 per person but $1 for the entire society, and the place is booked up for the rest of this season and for most of the 1939 season.

Then we walked a little distance and came to a fenced-in enclosure containing pheasants. "What in the world are you doing with these, Mr. Higgins?" I asked.

"Oh, we have an agreement with the local sportsmen's organization whereby they pay for feeding these birds and for the necessary equipment to raise them, and we fence the ground on which to run them, and at the end of the year we turn the birds over to the various sportsmen's clubs. The hunters get a better chance to do some hunting that way, and that makes every sportsman a booster for the forest," he replied.

Another short walk brought us to the brow of a hill. On the other side we saw a skiing ground, ice-skating rink, and a toboggan slide.

"Is this all you have Mr. Higgins?" I asked.

"No", he said, "we haven't shown you all of it yet."

We stepped into the car again and after a few miles we stopped at another lodge building. "This was built from the logs which we cut on the forest," Mr. Higgins explained. It was a nicely constructed building complete with everything that one needs for an extended stay. This particular lodge, Mr. Higgins explained, is rented out to civic clubs, such as the American Legion, the Knights of Columbus, the Masons, etc. That makes almost all organizations users and boosters of the forest. They take possession of the clubhouse and they pay $1 per club for the day. This house, too, is booked up for every week-end during the season and almost every week-end during 1939.

The land surrounding this clubhouse is more or less timbered and it, too, is under a practical plan of forest management which will provide for a sustained yield.

The Community Forest includes a very up-to-date fish hatchery. "What do you want a fish hatchery for, Mr. Higgins?" I asked.

"Well," he said, "the fishermen in this county don't always get all the fish they want and so they pay us to raise these fish for them and at the beginning of each season we furnish each fishing club with so many fish. And that makes all the fishermen users and boosters of the forest."

Throughout the forest there are camping spots with fireplaces, bridle paths, hiking paths, nature walks for nature studies and other forms of amusement for those who do not hunt, fish, stay in the clubhouse, play horseshoes, or do the things that the average human being desires to do. And that makes all the nature lovers users and boosters of the forest.

In other words, the Onondaga County Community Forest has been successful in furnishing recreation to the citizenry in such a manner that almost everyone is able to use the forest in some way, shape, or manner, and as a consequence over 500,000 people visited it during the season of 1938. And because of its popularity the hard-headed county fathers are willing and glad to spend the money to the tune of approximately $80,000 a year. And why shouldn"t they? Almost everybody is using the forest, almost everybody is getting some fun out of it, and hence almost everybody is boosting it. The unemployed are finding work there too.

It has become a playground for clubs, parents and children, and they demand its upkeep and enlargement. Hence one sees here the unique picture of a forester who does not have to beg for appropriations but is given freely all the money that he can use.

In the interpretation of this picture lies a significant meaning and it points the way in which one can, through the community forest, capture the love of an entire society.

Give the people a chance to use the Community Forest - give them a chance to use it in every conceivable way and as time goes on a loyal group of customers will be built up who will boost for the forest and fight for its maintenance and extension. And while they use it for play and pleasure, it grows into value and money.

This same example could be repeated throughout the Nation and we know that there are many public spirited citizens throughout the land who, if approached, will be glad to donate the land, free of charge, for a community forest as a memorial to themselves or some beloved relative.

Almost every county in the United States can accumulate, through gifts and tax delinquencies a community forest of 2,000 to 4,000 acres, and those who are responsible for its establishment will be long remembered after they are gone, for they will have left behind a monument which shows that they have lived — and unborn generations will bless their name.

PERSONNEL DIRECTOR HENDRICKSON ADDRESSES UNION'S IN-SERVICE TRAINING CONFERENCE

By M. A. Huberman, Washington

Forest Service people have for a long time been fortunate in enjoying the benefits of an in-service training program. Many of the other employees of the Department of Agriculture, and employees of other executive Departments are yet looking forward to the in-service training programs authorized in President Roosevelt's recent Executive Orders.

The keen interest in in-service training on the part of employees, personnel officers, and administrative officers resulted in the sponsoring of an In-Service Training Conference on January 14 and 15 in Washington, by the United Federal Workers of America. Mr. Roy F. Hendrickson, Personnel Director of the Department of Agriculture, made the principal address on the "Scope and Objectives of In-Service Training" at the Saturday afternoon session. Other speakers at this session included Samuel H. Ordway, Jr., of the U. S. Civil Service Commission, Lewis Meriam of Brookings Institution, and Jacob Baker, National President of the United Federal Workers of America.

Mr. Hendrickson ably pointed out the authorization for in-service training in the Executive Orders and in recent Comptroller General's decisions, and showed the value of such a program in improving the efficiency of the Federal Service by preparing employees to carry out their responsibilities with increased skill and greater understanding and satisfaction. He laid emphasis upon the continuous process of training where the relationship of executive and subordinate exists; and upon the need for directing and planning this training. Mr. Hendrickson showed the place of organized training either for groups or individuals, where it is necessary to take an employee from his assigned duties for this period of training. He also showed that a program must be broad enough in scope to include training in administration and supervision for those employees with supervisory, executive, and administrative duties; training to improve the technical phases of the work of professional employees; training to increase the skill of clerical and sub-professional employees and of skilled laborers; in each case emphasizing the need for training to orient all beginning employees, to improve the work of employees in their present assignments, and to prepare them for more responsible assignments. He also brought out the importance of post-entry education and the need for vocational guidance.

Mr. Hendrickson's address in its close agreement with the Union's proposed program, set the keynote for the entire conference. The remaining sessions were devoted to panel discussions on the detailed aspects of the main points raised in the addresses.

The Saturday evening session was given over to panel discussions on the administrative aspects of a program such as the cost, time, place and need for training; the part to be played by related institutions such as Universities, Federal Workers' Schools, and employee organizations; and the recognition of achievement in the training program. These panels included Presley W. Melton, Chief of Training Section of the Department, Samuel S. Board of the Department Personnel Office, A. S. Flemming of American University, Ismar Baruch and C. C. Hathaway of the Civil Service Commission, personnel and training men from the Social Security Board, and several U. F. W. A. representatives.

Sunday afternoon sessions were devoted to panel discussions of the Techniques of Training. On the first, dealing with Individual-on-the-job training Mr. Keplinger gave several picturesque examples of the success of this type of training in the Forest Service by way of illustrating the following points: (a) The training function of the administrative officer; (b) the necessity of basing the training on the needs of the individual; (c) the need for training supervisors in training techniques; (d) the advisability of planning and scheduling all training; (e) the assisting of employees to learn their need for self-improvement, and how to learn from mistakes; and (f) above all, teaching the supervisor to accept responsibility for poor work. Also discussed were group training methods and training materials such as manuals, correspondence courses, reading lists, and library facilities.

Perhaps the outstanding point of the entire conference was the extremely close agreement in the program outlined by the Union, and that described by Mr. Hendrickson, Mr. Keplinger, and the other personnel, training, and administrative officers. This close agreement augurs well for the new training program which will require the real cooperation of the trainers, and the trainees.

Also of interest were the repeated references throughout the Conference to "the way things are done in the Forest Service". We seem to have been given a reputation; now all we have to do is to live up to it.

TREATMENT OF SKIERS ON NATIONAL FORESTS

By W. E. Anderson, Chelan

In thirty-four successive winters of skiing, I have read or experienced nothing that I can so heartily endorse as McGowan's article "Treatment of Ski Trails and Areas on National Forests" in the January 9 issue of the Service Bulletin.

Why do we ski? The real reason isn't to show off colorful ski togs or to execute snappy Christie turns on a crowded ski hill before an impressed audience. Why do skiers, like McGowan, get more enjoyment from helping others ski than in actually skiing? It is because they have found a fulfillment in conquering the elements and the slopes in the deep woods and high mountains, a satisfying of the primitive, that urges to be passed on to others.

The prepared ski courses are training grounds for touring proficiency - a place to play during the week-end, for a workout, where congenial people can get acquainted and really know one another. These prepared and supervised ski courses are important and have a definite place in winter sports activity toward developing sturdy, unselfish youngsters and happier people. Then tomorrow they take off on the tour through the woods, over the ridge and down the other side - not too far or too fast and under confident control so the world will be appreciated at its best. At the end of five miles or more, they find a Forest Service ski shelter somehow stocked by enthusiastic ski clubs and Andersons and McGowans. When they return by way of another ski trail, or maybe go on to still another shelter, the word "happier" no longer applies. They are happy.

Well planned touring trails, moderately worked, and carefully located ski shelters are needed to facilitate year-long enjoyment and appreciation of our forest. It is a rough spot for the skiers and if you help them across, you will find yourself across with them - a grand crowd to be with.

OHIO MAPLE SYRUP PRODUCTION STREAMLINED FOR 1939

By L. F. Kellogg, Central States Forest Experiment Station

In Medina County, Ohio, just south of Cleveland, an interesting new enterprise will be tried out this spring just as soon as the maple sap begins to flow in February or March. A Mr. Packard, has erected a large sugar house about two miles north of Chatham, at which he plans to boil down sap gathered from maple farm woods throughout a considerable locality. The house contains three evaporators which will be operated simultaneously, and in one end of the house he has provided space for dancing and parties of those who wish to celebrate with maple sugar, maple whip, and other products of the sweet water.

To supply the sap, tapping rights have been purchased from many farmers, and arrangements have been made for delivery of the sap to the roadside. Collection will be made by truck over a regular route, similar to creamery pick-up service. This experiment is possible because of the indifference of most farm woods owners to the possibility of added income from boiling down the sap and sale of maple syrup. The economics of the enterprise are undetermined, but effort will be made through the Ohio Division of Forestry to obtain the costs and profits which this arrangement may yield.

MORE REGARDING "FIRST IMPRESSIONS"

By C. J. Olsen, R-4

Motivated by experiences similar to those mentioned by Mr. Evans in the Service Bulletin of November 28, I have made it a regular practice to check up on many offices both within and out of the Service. Try it and see what a difference there is. More than likely you will soon take action to consciously improve the situation in your own office.

When you answer the telephone next time, make a note of your reactions. Keep this up for several days and see how many of those calling really impress you favorably and how many make you feel like hanging up before you begin the conversation. Then when you call someone remember that you are about to meet in person the party you are calling. You are at a disadvantage because you can not see in order to size up the situation and your listener can not see you. You can only impress your listener by your voice. What impression will he get of you and the Forest Service?

FOREST PRODUCTS CO-OP ORGANIZED ON N. F.

By John R. Camp, Washington

Probably the first forest products co-op on a National Forest has been organized on the Nicolet in Region 9. A clipping from the Rhinelander (Wis.) News states that a group of Forest County farmers under the direction of the Forest Service and the Farm Security Administration have organized a forest products co-op to market timber from stumpage purchased from the Federal Government.

This is a really commendable venture since it will enable many poor subsistence farmers to increase their income. The Forest Service will sell timber to members of the co-op in amounts that can be handled and at periods when the farmers' time is not needed in farm work. The Farm Security Administration will assist farmers who do not have sufficient capital to buy stumpage from the Forest Service. This assistance will be in the form of small secured loans which are to be repaid in three years -- probably from proceeds from the sale of forest products.

Plans call for cooperative marketing of the forest products cut by members of the association. Pulpwood will be the first material produced, but members are also planning to market poles, piling, posts, Christmas trees, mine timbers, and sawlogs. After the co-op has built up its capital it may obtain a portable sawmill.

The Farm Security Administration has facilities for organizing cooperatives and can provide the necessary financial aid to farmers who are unable to help themselves. If there are opportunities for this type of development on other National Forests, and there must be many, follow the example of the Nicolet and find out what your local FSA official has to offer. The Washington Office will be glad to help in getting National Forests co-ops organized. Send in your propositions. Here is an opportunity to help people help themselves and at the same time make the National Forests contribute more to the well-being of their people. Region 9 and the Nicolet are to be congratulated for their efforts.

THE SHORT TERM WORKER

By T. J. Jones, Klamath

Mr. Headley's article in the Service Bulletin of October 17, 1938, keeps burning me until I feel I must say something, if only to deny the assumption that we of the field may have for a day become calloused to the plight of the short term workers and above all the protection force.

To me, the Fire Guard is not just an ordinary man out of work. He is a comrade with whom I have labored for thirty years and whose loyalty and ability as a class and as an individual is as nearly above any shade of doubt as is humanly possible. Many is the time I have awaited the return of one of these men from a fire with the feeling that progress had been slow on the fire or that poor work had been tolerated. Finally the man, whose ability I had doubted, returns, thoroughly gaunt and fatigued with several days' soot and grime of the fire line more in evidence than clothing, much of which is missing, in a half defiant manner, his only declaration being - "Well, she's out".

Most people would probably expect that a man in such a sorry plight would receive great sympathy. He doesn't, for the reason that the man is not the type that provokes sympathy. And, maybe this is a good part of the reason that he and his family suffer with less attention than if they were less spirited and less loyal - both to themselves and the Service.

The Forests have plenty of work to be done and these men should be employed for about four months additional at regular wages. I am opposed to any arrangement that would qualify these men for work under a public relief setup.

AMERICAN ELM BESET WITH ANOTHER EPIDEMIC KILLER

This country's most esteemed shade tree, the American elm, is now beset with another epidemic killer -- a virus disease. Pathologists in the Federal Bureau of Plant Industry find it has killed thousands of elms in the last few years in the middle and lower Ohio Valley. First indications of the disease are a slight shriveling and brittleness of the leaf. This is accompanied by a rotting of the roots and the inner bark of the trunk. Within a few months the tree may be dead.

This is the first time a virus disease has become an epidemic killer on forest or shade trees in this country. When the Bureau specialists could find no organism responsible for the disease, they proved it a virus by grafting scions from diseased trees to healthy trees. In a number of cases the healthy tree was infected. The proof that such a disease -- in which the organism or causal agent cannot be filtered out or seen under the microscope -- will kill forest and shade trees in an epidemic way may open a new field in the study of tree diseases, Bureau workers believe. They hope next to determine how the virus is spread and what may be done to combat it.

The disease was first called to the attention of the Federal Government at Ironton and Dayton, Ohio. Three years ago it appeared in Chillicothe, Ohio, where it has killed more than 1,000 out of about 1,800 elms on city streets and parks. More recently it has become severe in Columbus, Ohio. It was at first thought to be a "city" disease, but it has already been found in the forests of West Virginia. The disease also is known in northern Kentucky and southern Indiana and Illinois. - Department of Agriculture Press Release

FOREST SERVICE DEVELOPS BELL-RINGING RADIO DEVICE

A new radio bell-ringing device which permits emergency radio calls to be put through as easily as telephone calls has been developed in the Forest Service Radio Laboratory at Portland, Oregon.

This silent standby unit has been developed for the new Type T ultra-high frequency radio set which is a semi-portable outfit operating on 30,000 to 40,000 kilocycles. Any Forest Service ultra-high frequency radio set, however, even the lightest 8-lb. portable, can call a lookout or other station equipped with this bell-ringing device. One year was required in its development. Extensive field tests over a period of six months indicate that it is an exceedingly simple and fool-proof system, according to A. G. Simson, Forest Service Radio Engineer, who prophesies that the new device soon will have practical use in many of the National Forests.

Planned primarily for use at fire lookout towers, ranger and dispatcher stations, this system will eliminate interference between radio loudspeakers and telephones, and other annoyances caused by the constant noise from loudspeakers when operators were standing by. Lookouts and other forest officers will no longer need to stay close by their radio sets waiting for calls, as the device may be adjusted to carry signals considerable distances to men working outside their stations. Lookout men can be aroused from sleep by the ringing bell if a night-look for fires in their territory is required. A series of code-rings are possible when several stations are included in any one Forest Service network.

Less expenditure is involved in this bell-ringing system than in the usual loudspeaker development. The battery consumption is so low than 24-hour operation can be afforded. It is believed that this is the first time that bell-ringing has been incorporated in truly portable, dry-battery-operated radio equipment. - W.O. Press Release

THE EDITOR DISCOVERS

Persimmon wilt is spreading over the southeastern States with "explosive" rapidity, according to a recent Department of Agriculture press release. A year ago the Bureau of Plant Industry believed serious infection was limited to an area southeast of Nashville, Tennessee. Since then they have found such infection in western and northern Florida and in parts of Mississippi and Alabama, with the most rapid spread in 1938 in Georgia and South Carolina.

How and when persimmon wilt was introduced into this country, Federal pathologists do not know. The symptoms - wilting and discoloration of the leaves and brownish-black streaks in the wood - are similar to those of Dutch elm disease. The fungus that causes the disease forms countless spores under the bark upon the death of the tree. Wind borne spores may be the way in which the disease is transmitted. Trees that wilt and die in late summer often are rotten and worthless by the following winter, so rapidly does decay occur.

Persimmon wilt has not been found in California where are grown the Kaki, or fruit tree persimmons. The Kaki is a native of China and Japan where its large fruit is prized as human food. It is possible, pathologists believe, that the Kaki may be a carrier of the wilt disease, although seemingly resistant itself.

- - - - - - - - -

Effective March 1, 1939, the western portion of the State of Oklahoma now in Region 2 will be transferred to Region 8, and the regional boundaries changed so as to include the entire State of Oklahoma in Region 8. Recent developments in the field of State and private forestry activities make it desirable to have Forest Service regional boundaries confined to State lines wherever practicable, thus obviating the necessity of any one State Forester having to deal with more than one Regional Forester.

- - - - - - - - -

Establishment of the Rock Creek Natural Area on the Cumberland National Forest, Kentucky, was approved by the Acting Chief on January 18. This area, containing approximately 190 acres, is one of the very few remaining examples of virgin hemlock-hardwood forest type formerly widespread in the Cumberland Mountains.

- - - - - - - - -

The Technical Association of the Pulp and Paper Industry has given the New York State College of Forestry at Syracuse University a grant of $1,000 for the support of research on the following project: "The Relation of Lignin Content to the Strength of Paper and Pressed Boards."

The Technical Association of the Pulp and Paper industry, through its Committee on Fundamental Research lends financial assistance for research on approved problems fundamental to the pulp and paper industry. In this way research is promoted and helped at selected institutions.

The above research project will be carried out on a graduate basis under the direction of Professor E. C. Jahn. A T.A.P.P.I. Fellow has been selected and is now at work at the College. He is C. V. Holmberg, graduate of Michigan State College, who did graduate work last year in pulp and paper chemistry at the University of Idaho with Professor Jahn, before Professor Jahn resigned from that institution.

- - - - - - - - -

Sportsmen in the United States and Alaska paid $11,348,006 for 6,860,010 hunting licenses in 1937, according to data compiled by the Biological Survey. Federal migratory-bird hunting stamps brought an additional $783,039 in the same period, bringing the total for licenses and Federal duck stamps to $12,131,045. License returns in 1937 were nearly a million more than in 1936, when there was also an increase of nearly a million over the preceding year. Federal duck stamp sales increased from 448,204 in 1935 to 603,623 in 1936 and to 783,039 in 1937.

- - - - - - - - -

The cost of clothing a CCC enrollee during the 1939 fiscal year will be $90.61, according to statistics prepared by the Quartermaster Corps of the War Department, which purchases all CCC clothing supplies. There are 26 separate articles of clothing and equipage on the enrollee clothing allowance. The total number of units of clothing, shoes, etc., aggregates 78. Included in the CCC wardrobe are 12 pairs of trousers (4 denim, 4 cotton khaki and 4 woolen), 2 olive drab coats, 1 overcoat, 8 shirts, 4 summer and 4 winter undershirts, 4 pairs service shoes, 2 pairs overshoes, 2 overseas and 1 winter cap, 2 denim work hats, 12 pairs of socks, 2 web belts, 1 windbreaker, 1 mackinaw and 2 neckties. Corps Area Commanders are authorized to modify this regulation clothing allowance to meet local climatic, work, and other special conditions.

- - - - - - - - -

Dr. James L. McCamy, Professor of Government and Chairman of Social Studies at Bennington College, Bennington, Vermont, was named as Assistant to the Secretary of Agriculture, on February 1, according to a Department of Agriculture press release.

A native of Knoxville, Tennessee, Doctor McCamy was graduated from the University of Texas with a B. A. degree in 1929 and an M. A. degree in 1932. He received his Ph. D. degree from the University of Chicago in 1938.

As an undergraduate of the University of Texas, Doctor McCamy worked as a reporter on the Austin American, Austin, Texas, from 1924 to 1929. He was on the staff of the University of Texas Alumni Association from 1928 to 1933 and was a tutor in Government at the University of Texas in 1932 and 1933. He served as a research assistant at the University of Chicago while taking graduate work in 1933 and 1934 and took the position at Bennington College in 1934.

- - - - - - - - -

The appointment of Melvin I. Bradner as Director of the Northern Rocky Mountain Forest and Range Experiment Station was recently announced by Mr. Silcox. Mr. Bradner succeeds

Stephen N. Wyckoff who recently became Director of the Pacific Northwest Forest and Range Experiment Station.

Mr. Bradner is a native of Michigan. He entered the Forest Service in 1920 and has had wide experience in research, technical and administrative work. He is a graduate of the University of Michigan.

- - - - - - - - -

John C. Beebe, Assistant Regional Forester in charge of the Division of Engineering in R-5, has been selected by the Federal Power Commission to head up the Division of Power-Flood Control Investigations of the Commission in Washington.

- - - - - - - - -

Promotion of Clyde S. Webb to the position of Assistant to the Regional Forester in Region 1 has been announced by Regional Forester Kelley. Mr. Webb has been a member of the R-1 organization since 1913, and since May 1936 has been regional inspector in the Division of Operation.

- - - - - - - - -

R. D. Bonnet of the WO Division of Recreation and Lands has been transferred to Region 5, where he will fill the position of chief landscape architect in the Regional Office.

- - - - - - - - -

Lloyd W. Swift, of the California Forest and Range Experiment Station, has been transferred to the R-2 Regional Office to take charge of game and fish management studies. Mr. Swift will succeed A. Allen McCutchen, who was transferred from the Regional Office last June to the position of Supervisor of the Shoshone Forest.

- - - - - - - - -

Professor Ralph Clement Bryant, a member of the faculty of the Yale School of Forestry for over thirty-two years, and a former president of the Society of American Foresters, died of pneumonia on February 1 at the New Haven Hospital after an illness of ten days. He was Professor of Lumbering at Yale. He was the author of two textbooks entitled "Logging" and "Lumbering."

SERVICE BULLETIN

CONTENTS CONFIDENTIAL

MAR 11 1939

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT xxx THE TIME HAS COME FOR A CHANGE AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY xx TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES, WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER
>
> Theodore Roosevelt

Vol. XXIII No. 5 Washington, D. C. March 6, 1939

GRADUATE STUDY AT ANN ARBOR

By Peter Keplinger, Washington

In January of this year, the University of Michigan, through the leadership of Dr. Dana, Dean of the School of Forestry, tried an experiment in graduate training which seems to have great possibilities, since it has long been recognized that professional workers need more than an undergraduate course.

Dr. Dana proposed to Region 9 sometime last summer that they attempt to work out something in line with what the men themselves want, both as to subject matter and time. The Region found that 49 men were interested, the majority in "administration", though their interest ranged over 27 subjects. Region 2 heard of the plan and requested the privilege of sending men. It was finally decided that this year the group would be limited to a study of administration and to fifteen men--two from Region 2 and thirteen from Region 9. Later the New England emergency work took five of the men selected. All had sufficient accumulated leave so that they received their salary. The period was four weeks.

Dr. Dana next secured the cooperation of Vice-President Yoakum and of the School of Public Administration. Dr. Benson and Professor Ramsdell then spent a week in Milwaukee to familiarize themselves with the Forest Service organization and to complete their plans in cooperation with Region 9. Dr. Benson was selected to lead the instruction, discussion, and seminar work, assisted by Professors Ramsdell, Allen, and Andrews. A room was assigned to them in the new graduate school building, providing a most excellent place to work.

During the third week of the course, I had the privilege of visiting the group, attending the regular sessions, discussing their work with them, and obtaining their ideas as to how the course might be improved another year. I also discussed these questions with Dr. Benson.

My first observation is that Dr. Benson has done a mighty fine job. He planned a very fine course, built largely around organization; his method was very acceptable to the men, in that he won their complete confidence, gave them confidence in themselves, developed in them the proper mental attitude, and succeeded in keeping the discussions on a free and open basis, yet everybody interested and working.

The school provided single lectures on a number of subjects, such as Recreation, Wildlife, Report Writing, Advertising, and Training. The men agreed that the one day field trip was very worth while. In addition, they found their way to a number of interesting lectures not scheduled.

In my discussion with the men, I told them that this was an experiment and that they should be thinking about the future, so that they might give the school the benefit of their advice before leaving. Among their suggestions were: more guidance, better organized references for reading, possibly two courses, more help in finding outside interests, and possibly short series of lectures (say three) on related subjects. No doubt after further thought they were able to give Dr. Dana others of value.

Dr. Benson suggested that next year a brief advance survey of the work of each man be made so that the course could be based more largely on their needs and more illustrations and examples chosen from within the range of their experience. I think this an excellent idea. I had a feeling that the program might well have emphasized "management" more and organization less, but of course I had no real basis for my opinion. The survey as proposed would find out.

One other suggestion, stressed most of all, I have kept for the last for emphasis. All think there should be some systematic follow-up on the work started. They will need help in reorienting themselves and in working out the relationship of the things learned to their jobs; or to put it another way, to make their new information a part of their working knowledge. The school recognized the desirability of this, but is not equipped for this service. The Forest Service likewise is poorly equipped, but should plan to do something.

Personally, I think the experiment has demonstrated that there is a big unoccupied educational field, and has indicated an approach. I hope the school will continue and believe that if it does, it will develop some new educational techniques of great value.

AMONG THOSE PRESENT....

By W. W. Bergoffen, Desoto

It is felt proper and just that we doff our caps to the men, among us, who have faithfully served the cause of forestry for the past twenty years or more. Many Rangers are included in the list of veterans in the Service. These Rangers have grown up with their Forests, so to speak, and respect is due them for their fine reputation of having done their job well over a period of long years.

Ranger W. A. Woody of the Chattahoochee National Forest is one of these "old-timers". He started his colorful career with the Service as a chainman, way back in the days when Georgia mountain lands were first being purchased by the Government for National Forest purposes. Woody passed one of the early-day examinations and was turned loose on the very district which he now administers.

A quarter of a century has wrought many changes in his one-time "back-woods" Blue Ridge District. Behind the fine young stands of timber which have sprung up all over the logged areas lies a stirring story of Woody's care and protection. He has played a large part in the acquisition of additional forest lands. The forest highways, roads, and trails and the many other structural improvements which cover his district today are the result of his nursing of the earliest trails and improvements, which he built, largely, with his own hands. The game refuge and preserves are splendid, well-stocked areas, examples of his keen interest in and his work with wildlife in every form.

Ranger Woody's principal achievement, and one which is largely responsible for his administrative record, is the success which has attended his relations with the public. For his is the knack of "getting-along" with people, with the result that all through his country there has been fostered a great respect for the Forest Service and for the work done in the National Forest. The mountain folks, businessmen, lawyers, doctors, and congressmen alike know him as their friend, and respect his opinion highly. He is a familiar figure at every court session in the various towns bordering on his district and one wonders if this activity is not part of the secret why he is so widely known and liked.

In late years he has achieved a reputation for being quite a training officer. The "young bucks" who work with him seem singularly blessed as they go on to more responsible positions. Woody will not admit it but he does use the four-step method. The greatest emphasis, however, is placed on the "Let-him-do-it" stage, with good effect.

Space will not permit the telling of those romantic and colorful stories for which Ranger Woody is most famous, and which, for the most part, concern him and his activities with the Service. Some idea may be gathered from a present-day description of this Forest Ranger. Add twinkling blue eyes, rosy fat cheeks, an enviable happy disposition full of ready wit and humor to 240 pounds of fairly solid flesh and bones, in the formation of which great amounts of corn bread, black-eyed peas, and buttermilk played no little part, and place all this on a six-foot frame and you have Ranger Arthur Woody. His closest friends know him as the "King-fish of the Mountains". Long may he preside.....

TREATMENT OF SKI TRAILS AND SNOW PLAY FIELDS - REGION FIVE

By L. S. Smith, Tahoe

The article in the Service Bulletin of January 9, 1939 by Graeme McGowan has been read with considerable interest. I am in entire agreement with most of his statements. We have consistently urged controlled skiing and ski touring as against practice slope skiing. One may shine on a well-packed slope, but not be able to make a cross-country trip through timber in any kind of snow.

There is no doubt that cross-country tours across all sorts of terrain are more enjoyable and more beneficial than merely climbing a small slope to slide down again.

In regard to width of trails, however, I cannot subscribe to his statements as applicable to our Region under any or all conditions. The width of a trail on a slope in timbered country should be governed by the following factors: (a) present use and (b) possible future use.

When the opening of a trail is going to make available good skiing terrain which will draw a lot of skiers, obviously a narrow trail that might be sufficient for a few would be too crowded if use at any one time or any one day would run into hundreds. We have had a lot of experience along this line and have found that the narrow trail, like the old seven, eight, or nine foot Forest road, soon had become dangerously narrow.

The icy condition under the trees, caused by the melting snow falling off the branches and later freezing, makes for serious falls because of alternating areas of soft and icy snow that cannot be seen in time. To overcome this it has been found necessary to have a trail for ordinary touring and moderate slopes for average speed at least ten feet wide between all possible crown cover. This often means considerable clearing beyond the ten foot line. On steeper slopes at all turns or on parts of slopes where speed might become excessive (out of control) we have had to widen out old trails that at first were considered ample. On these trails we were at first all beginners, and snow plowing was resorted to much of the time, but as their use increased we found that in the interest of safety we had to change our views and widen not only the turns, but also the tangents.

While we believe people who learn to ski are going to go farther and farther afield, yet while learning they are going to crowd the trails and just as fast as trails are opened they are going to use them.

A narrow, winding trail presents hazards that thrill the expert. We find here, however, that the expert is not the only one to attempt such trails, and when, on a single area, we have 400 to 500 skiing, and on some week ends as high as 6000 at one time, it becomes necessary to widen out all our timberland trails.

We have found that when the weather is clear and cold and we have light powdered snow under timber, it is often unnecessary to consider trails at all. In so much of our territory, however, such snow conditions are the exception. Thaw crust, wind crust, all sorts of heavy pack caused by variable weather is the rule. Therefore, no standard width can be set up.

ACCOUNTING COOPERATION WITH STATES

In 1932 the Regional Fiscal Agent of Region 9 cooperated with the State of Wisconsin under the Clarke-McNary Act in devising a complete budgetary and accounting system for the Forestry Division. This system proved so satisfactory that it has since been extended to all divisions of the Conservation Department and converted to the bookkeeping machine method.

Since that time cooperation along accounting lines was given other States in Region 9. Last December the Director of the Conservation Department and State Park Board of Missouri requested the cooperation of the Regional Fiscal Agent of Region 9, S. E. Schoonover, in establishing a new centralized accounting system. As both Clarke-McNary and Patman-Robertson funds were involved, this cooperation was gladly given. A complete new modern machine accounting system involving both collections and expenditures for the Conservation Commission and State Park Board was devised in detail and installed by Regional Fiscal Agent Schoonover. It is understood that this is the first bookkeeping machine installed in any State Department in Missouri.

The Commission derives its funds entirely from collections for licenses of various kinds, while the State Park Board receives direct appropriations from the legislature broken down by various classes. The accounting system outlined by Region 9 provided for all of these requirements as well as including an adequate accounting for our Clarke-McNary fund and the Patman-Robertson wildlife restoration fund.

This is a new field of cooperative effort by the Forest Service of a type greatly appreciated by State officials and provides very desirable facilities in better administration of our Clarke-McNary activities.

MORE ABOUT OUR OWN ONE-THIRD

By Frank A. Albert, Florida

In Mr. Guthrie's article "Our Own One-Third" (Service Bulletin of November 28, 1938) he speaks of the time in the future when we will not have CCC Camps as our first line of defense in fire control work. That future has already arrived in Florida.

We have two Ranger Districts on which there are no camps with a third one probably to be without a camp in the near future, so the time has arrived when we must go back to our fire guard system and rely on local fire fighters whom we have neglected since 1933.

Unfortunately, in Florida the fire season extends throughout the entire year. The distinct fire season begins about November and ends in May of each year, but fires occur and burn rapidly during the rest of the year, so that we have practically a 365 day fire season during which fires will burn with great rapidity on all days excepting when it is actually raining.

On the Osceola National Forest we have set up a program by dividing the forest into four guard districts. The plan works out in a very satisfactory manner as long as we are able to employ the guards, but since these men do not have Civil Service status we are not allowed to employ them a full year. We employ them for the maximum time that the law permits and then turn them loose to find any employment that they might be able to get, or starve until we can get them back on the payroll.

From the human relation standpoint, this seems to me to be a pretty poor policy for an organization that is talking about social benefits to the lower one-third of our Nation's population, and I thoroughly subscribe to Mr. Headley's and Mr. Guthrie's articles to the extent that we should take care of our own people first before we start branching out and caring for all people who may live near or on our Forests.

Since our guards do not have Civil Service status they do not come under the benefits of the Retirement Act. They are not being employed in private industries and they are, therefore, not eligible for the benefits of the Social Security Act. In other words, when our lower one-third reaches the age when they are no longer physically able to take care of the difficult fire job they are called upon to perform, we turn them loose to take care of themselves as best they can. If they are not able to find employment which they are physically able to perform they can either go on Government relief or to the county poor house.

I strongly recommend that we do not limit our activities to writing news articles or even letters along this line, but get busy and do something about it. In the first place, we need a Civil Service position for forest guards. I do not know whether the other Regions have need for this particular position, but I do know this one does, particularly in Florida of which I speak. I am quite certain that if the proper efforts were expended we could prevail on the Civil Service Commission to offer Civil Service examinations for this class of personnel. The examination should be of a practical nature so that it is within reach of our local fire guards. Some of these positions may be made available to forestry college graduates who wish to accept these jobs in an apprenticeship capacity, but at least 75 percent of these positions should be filled by local qualified men.

After this examination is made available and position set up, sufficient funds should be provided to pay these men a salary sufficient for them to support themselves and their families. It must be remembered that these old forest guards did not get on the "CCC gravy train" but stuck to their post during the prosperous days of this program, and I think that from the point of fairness we cannot do anything else but give these forest guards a fair assurance of employment and a living wage.

There is much to be said in favor of the local forest guard. To begin with, he is a low paid employee. If he is given a fair wage and a reasonable sense of security in his work he does not expect to be the Forest Supervisor in the next year or two, but is satisfied to turn out high quality work and faithful service year after year in his position as forest guard. Personally, I think he is the backbone of any Ranger District. He is usually there before and years after the various District Rangers are transferred.

I hope the personnel committee will be able to work out something that will clear up this obviously unfair and unsatisfactory condition.

CASE HISTORIES

By R. S. Campbell, Washington

During my swing around the western Regions last year in connection with the utilization standards project, I was repeatedly impressed by the especial value of the occasional bits of detailed history of certain critical range areas. Such occasional case histories are of distinct value in relating past to present use in attempting to appraise present condition. An illustration of such use of history is developed in an article entitled "Local Land Use Histories" by Lloyd W. Swift in the December 23 issue of the California Ranger. I think this story, quoted below, will be of interest to workers in other Regions.

"Every forest has a number of small areas that are of special interest because of their land use importance and history. In the majority of these cases, however, the present condition and use are considered and evaluated without a knowledge or appreciation of the past. Hence, this is a plea to obtain the history of some of these areas before it is too late.

"What areas would qualify for detailed consideration? No doubt, small intensively used valleys would lead the list. Ridge tops and passes are often important routes of travel and may be critical use areas. Benches, likewise, may be centers of concentration and use, and so on.

"There are a large number of uses that might affect an area, such as trailing and grazing of livestock and wildlife, logging, summer homes and recreation and many others. In addition to these, a history should record such natural and destructive disturbances as fires, droughts, floods, and epidemics of plant diseases and insects. All factors, of course, to have their proper relationship must be chronologically arranged.

"Many forest officers would be inclined, with considerable justification, to dismiss history collecting as an unnecessary detraction from more urgent work. However, such information would have considerable value. It would provide definite, historically checked, examples of the kind and extent of use that should or should not be allowed. Furthermore, this information would provide a basis upon which to plan future developments and uses for similar areas. Then, too, there is history for history's sake, which may appeal to a brave few.

"A recent check-up on a small mountain valley in California shed considerable light on the value of historical data in explaining present conditions. Since settlement the uses had been hay production, dairying, beef cattle production, sheep grazing, logging, and stock driveway. Related to these were drought and abnormal run-off. Fortunately, records had been kept for a period of years so that it was possible to explain the changes that occurred in the valley floor and on the watershed. With this background future periodic observations will have especial value and interest.

"As a result of this study of a mountain valley, certain data have been found to be of particular value. Some of these are:

"1. When possible, obtain an aeroplane photo of the area.

"2. Take still pictures of critical spots, being careful to have the camera location and the angle recorded so that repeats can be made in future years.

"3. Where vegetation is involved, make intensive samples of definitely described areas for plant density and composition.

"4. Obtain the history of use in such a way that the character, intensity, and areas affected are recorded.

"5. Make detailed large-scale maps of sample or key portions."

DEAN HENRY S. GRAVES TO RETIRE FROM YALE FACULTY

The retirement of Dean Henry S. Graves of the Yale School of Forestry in June was announced by President Charles Seymour on February 15. He will be succeeded by Dr. Samuel J. Record, Professor of Forest Products at Yale.

Dean Graves graduated from Yale College in 1892, and after taking a special course in forestry at Harvard for a year, carried on investigations in forestry in the field, and then spent a year abroad studying at the University of Munich. In 1898 he entered Government Service as Assistant Chief of the Division of Forestry in the Department of Agriculture, and remained there until 1900, when he was called to Yale to organize the School of Forestry. He served as Director of the School until 1910, when he was appointed Chief of the United States Forest Service. In 1920 he resigned from Government Service and for two years was engaged in the practice of his profession as a consulting forester. Since 1922 he has been Dean of the School of Forestry at Yale and Sterling Professor of Forestry.

Professor Record, who will assume office on July 1, is a graduate of Wabash College, and received the Master of Forestry degree from Yale in 1905. He was appointed to the Forest School faculty in 1910, and was promoted to the chair of Professor of Forest Products in 1917. Before coming to Yale he conducted many forest studies and he was the first Supervisor of the Arkansas and Ozark National Forests. He has been chiefly responsible for the development of Yale's studies in tropical woods. Under his direction the Yale collection of woods of the world has become the largest and most comprehensive, and now contains more than 36,000 specimens representing 11,100 different species. (From Yale University News Statement)

THE WAYS OF A FORESTER

By Emma H. Morton, R. 6

"The news story of his death and life remarks that Allen H. Hodgson, late chief of the division of personnel management for the North Pacific Region of the Forest Service, was the author of a bulletin on waste in logging and milling operations, and that he also inaugurated new methods of personnel management. Such an account, of course, could not tell of this forester that his friends were the grave and whispering trees, and that he found voiceless prayers among them.

"Such an account might not recite, for that matter, how friendly and generous was his nature, and how often he helped those that needed aid with the problems of our times--from his own heart and purse. It could not inform the reader how greatly he was beloved, for his gentleness, his human warmth and generosity. How once he helped a youthful lookout to obtain a second-hand car that he, the lookout, might keep his work. For in the news it is forbidden, save by implication, to speak of this. Yet all of this was true. And now his life must seem, to those that knew him, like a green tree that cast a grateful shade."

This is an editorial which appeared in the Portland Oregonian of February 17. In the death of Mr. Hodgson we have lost a real friend and the Service has lost a faithful and loyal employee.

(Mr. Hodgson died on February 15 following an operation. He had been ill for only a few days. - Ed.)

THE EDITOR DISCOVERS

After five weeks of work on numerous aspects of fire control, the meeting in Washington of representatives of the Regions and Research came to a close on February 18. Mr. Headley reports as follows regarding the conference:

During these weeks the entire system of fire reports and fire statistics was completely recast. The Form 929, Individual Fire Report, in particular, was revolutionized. No compilations from this report in the old manner will be necessary after it is put to regular use on January 1, 1940. The Individual Reports on the 10 to 16 thousand fires each year will come into the Washington Office, where a punch-card operator will take off all data directly. Two cards will have to be made for each report. Semi-annually these cards will be run through the Hollerith machines. Reports to Regions and Forests will be made from the compilations thus obtained from the machines. By combining different half year periods it will be possible to have calendar year or fiscal year reports. The fiscal year reports will then be matched directly with expenditure data obtained on a new Sheet A which will be prepared from accounting records and handled through accounting channels.

During the five weeks, the 1930 edition of the Glossary of Terms Used in Forest Fire Control was completely revised and will shortly be issued for use by all concerned both inside and outside the Forest Service. The new edition is expected to be slightly larger than the old 22-page glossary. Full advantage was taken of the opportunity to obtain perfect coordination between terms defined in the glossary and those used in fire forms.

Administrative aspects of fire danger meters were considered and an effort was made to coordinate the different systems in such a way as to serve best the needs and interests of Research and all National Forest Regions. The coordination of all work being done in the fire control replanning project now under way was exhaustively considered and definite decisions reached as far as was found advisable at this time.

A day was spent with the organizing committee of the new Advisory Council of Human Relations which is being set up by the American Association for the Advancement of Science. Representatives of each Region and Research presented problems in fire prevention which seemed most pressing and most suited to consideration by the scientists attending.

Considerable time was given to the subject of fire weather forecasting. Messrs. Calvert, Gray, and Pierce of the Weather Bureau attended and cooperated wholeheartedly. Plans are being developed for much wider and, it is hoped, much more accurate and usable forecasts in the future.

Considerable time was given to development of a system for obtaining and coordinating estimates for fire control, these estimates to be made after the replanning process is completed. The estimates when prepared and coordinated will be far superior to any estimates for this activity ever made by the Service heretofore.

Many incidental subjects were discussed, such as plans for electrical transcriptions of fire prevention material next year; the new damage appraisal systems being developed by Messrs. Show and Kotok; the Guard quota system; the problem of reporting on landing fields to the Civil Aeronautics Authority; new schemes on radio development; the problem of new Federal legislation on fire; unification of financial management to obtain longer periods of service for Guards, etc.

The last two weeks were given over to a meeting of the Fire Control Equipment Committee. During this session the present status of development work was reviewed and definite plans made for the future. The master specifications developed by the Equipment Committee two years ago were reviewed and brought up to date. The page proofs of the long delayed handbook on fire control equipment were reviewed and plans made for the first set of amendments.

It is claimed that an all time record has been made in reduction of paper work. Some expansion accounts will be necessary to get the expenditure figures for the new Sheet A, but with this exception all changes make for less work - much less in most instances. The troublesome old sheet A will disappear after 1939. So far as field offices are concerned all the other reports of the A to LM series go out with it. Only one side of the new letter sized Individual Fire Report need be filled out for Class A and B fires. The exasperating cost block on the form vanishes. Individual accounts cards will be kept for fires over 10 acres only, instead of for all fires. Form 924, Supervisor's Annual Report, will no longer be made - except from Washington to the field. The Fireman's Report, Form 592, will be discontinued as a Service-wide form. Any Region using it will be doing paper work as a matter of Regional choice. The reports called for by the long awaited Fire Control Equipment Handbook were drastically reduced by the Equipment Committee. The amendments accomplishing this will be ready by about the time the Handbook is received from the Government Printing Office.

- - - - - - - - -

"Among Those Present," published in this issue of the Bulletin, we are hoping will bring forth additional articles about some of the other men in the Service whose colorful careers would make interesting stories.

- - - - - - - - -

A new Forest Service motion picture on the subject of recreation, entitled "Re-Creation", by Director Charles McDonald, has been released. It is a three reel subject which portrays the recreative effect of recreation in the National Forests by people with jaded nerves from the metropolitan centers. The subject is dramatized with the use of actors and a specially written musical score. It will be released in both 35 mm. and 16 mm. sizes.

- - - - - - - - - -

The following personnel changes have been announced by Mr. Silcox, effective April 1:

C. J. Buck, Regional Forester R-6, is being transferred to the Washington Office in the capacity of general inspector and special assistant to the Chief.

Lyle F. Watts, Regional Forester R-9, will succeed Buck as Regional Forester of R-6.

Jay H. Price, at present Associate Regional Forester R-5, will become Regional Forester of R-9.

ARTICLES BY MEMBERS OF FOREST SERVICE APPEARING IN OUTSIDE PUBLICATIONS

Compiled by Washington Office Library

AFANASIEV, MICHEL. Effect of indolebutyric acid on rooting of greenwood cuttings of some deciduous forest trees. illus. "Literature cited": p. 41. Jour. Forestry 37(1): 37-41. Jan. 1939.

CUNNINGHAM, R. N. Preliminary figures from Lake states forest survey. tables. Jour. Forestry 37(1): 66-69. Jan. 1939.

FRANK, BERNARD. Farewell to the smokies. illus. Nature Magazine 32(2): 99-104. Feb. 1939.

GARVER, RAYMOND D. The nation-wide forest survey. illus. Amer. Wildlife 27(5): 88-89, 94. Sept.-Oct. 1938.

_______ The nation's timber stand. Summary of the first over-all account of the U. S. Forest Survey. Amer. Forests 45(2): 66-68. Feb. 1939.

HALL, R. C. A parable for tax reformers. Jour. Forestry 37(1): 65-66. Jan. 1939.

HALLAUER, F. J. Pitfalls in interpreting lumber consumption trends. chart. Jour. Forestry 37(1): 47-49. Jan. 1939.

KOEHLER, ARTHUR. The properties of Australian timbers. Part 3, Pinus radiata D. Don (Pinus insignis Doug.), Insignis, Monterey, or remarkable pine. 31 p. illus. (Australia. Council for scientific and industrial research. Div. Forest products. Tech. Paper 28). (Review) Jour. Forestry 37(1): 76-77. Jan. 1939.

LENTZ, G. H. and PAUL, BENSON H. Knots in second-growth pine and the desirability of pruning. Washington, U.S. Govt. print. off., 1938. 35p. illus. (U.S. Dept. of agriculture. Misc. Pub. 307). (Review) Jour. Forestry 37(1): 75. Jan. 1938.

LENTZ, G. H. Comments on Henze's article "A device for measuring sample plot radius". Jour. Forestry 37(1): 69. Jan. 1939.

MATTHEWS, DONALD N. and SCHROEDER, GEORGE H. The art and science of protecting forest lands from fire. Oregon state college cooperative assoc., Corvallis, Oregon, 1938. 184 p. lithographed. (Review) by D. N. Matthews. Jour. Forestry 37(1): 74. Jan. 1939.

SCHREINER, E. J. The possibilities of the clone in forestry. Jour. Forestry 37(1): 61-62. Jan. 1939.

SPARHAWK, W. N. Kolonialforstliche Mitteilungen (Reports on colonial forestry). Band 1, Heft 1. Neumann-Berlin, Verlag J. Neumann, 1938. 282 p. Jour. Forestry 37(1): 75-76. Jan. 1939. (Review).

_________ Note on - The Philippine Journal of Forestry. vol. 1, 112 p. published quarterly by the Philippine Dept. of Agriculture and commerce, Manila. 1938. Jour. Forestry 37(1): 78. Jan. 1938.

TIEMANN, HARRY D. Lessons in wood technology. 8. The structure of wood. South. Lumberman Jan. 15, 1939. p. 47-48.

WATERS, F. RUTH. Foresters race against time to salvage hurricane-killed timber. illus. Forestry News Digest. p. 8-9. Jan. 1939.

9
76W

LIBRARY
RECEIVED
MAR 25 1939 ★
U. S. Department of Agriculture

SERVICE BULLETIN

CONTENTS CONFIDENTIAL

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT xxx THE TIME HAS COME FOR A CHANGE AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY xx : TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES. WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER
>
> Theodore Roosevelt

Vol. XXIII, No. 6 Washington, D. C. March 20, 1939

"THAT WONDERFUL SWEDISH BUDGET"

By the Editors of Fortune, in consultation with Prof. Gunnar Myrdal
(A digest of the article in Fortune Magazine for September 1938)

A background fundamental "is the character of the nation, incorporating the characteristics of its individual citizens. There are only 6,250,000 people in Sweden, racially homogeneous and heavily concentrated on the southern end of the peninsula. The Swedes can talk about their country with some accuracy as a family, and an unusually placid one. Strife between labor and capital, as between political factions, is waged on the basis of differing ideas and interests rather than of cliques and personalities. --- The government at present belongs to labor, a fact that capital is obliged to accept with good grace since no change is likely for some time. On the other hand, Swedish labor shows no inclination to punish or to destroy business. Public and private enterprises are closely intertwined, with the state owning enormous enterprises, sometimes in partnership with private owners. --- No taxes whatever are levied on land and few on production ----. She is very dependent on her export revenue; normally a full quarter of her industrial products are exported --- the state has a controlling interest in the enormous mines --- owns the main railroads, --- has a monopoly on the telephone, telegraph, and radio." The tobacco and liquor trades are under a state monopoly set up in corporate form. The state is in the banking business. And it runs a lottery. Removed from the field of private competition are all urban utilities and transportation, and most municipal real estate is either publicly owned or controlled. All these concerns are consistent profit makers.

"A state whose assets are largely of the income earning variety is a very different financial proposition from a congeries of dams, weather bureaus, and army mules. (Remount Station please note.) The state does not mix up its business budget with its ordinary budget."

The traditional way to raise money for unproductive purposes in Sweden is by taxation. Taxes are levied chiefly on income, and by far the largest amount is on incomes below $2,000. A broad base of income taxation is doubly necessary, the Swedes think. First, it guarantees a widespread political responsibility. Secondly, it provides the only adequate source of revenue.

However, to relieve immediate distress would have called for doubling the tax rate. "And finally they argued that any taxation is deflationary, and that further deflation was precisely what the government wished to avoid." Consequently the Parliament agreed to permit the government to borrow for unproductive purposes. But with the understanding that the loans must be repaid within seven years. Out of this "has emerged the budget for 1938, and a lesson for the world in the uses of controlled inflation."

"The mechanism through which the government proposes to exert this inflationary influence in the next depression is a budget plan ---. It provides for regular spending to be met by revenues with a slight surplus. But it further authorizes (a large sum) to be borrowed if necessary." Its use is contingent on a business decline.

Here is the gist of the new plan.

"The Budget is divided --- into an ordinary current budget generally financed by revenue and an investment budget financed by borrowing. --- On the investment budget the state reports its capital transactions; borrowings are listed as income on one side of the page; actual investment is listed as expenditure on the other. Thus the investment budget balances, by definition: any state enterprises that cannot make an adequate return are subsidized out of the ordinary budget until they do so, or else a part of the capital cost is written off with ordinary revenue. In this ingenious fashion the state enterprises are kept under the popular commercial heading of guilt-edged investments. --- The ordinary budget is not supposed to balance. In the event of a depression --- the government borrows any amount for any purpose even though unprofitable --- borrowing and spending as long as the depression lasts. But --- and this is where the Swedish New Dealism differs from the American --- any deficits incurred in this way must be paid out of future ordinary revenues. The deficit of one year is charged against the following years at the minimum rate of 20% a year until the debt is wiped out."

"To see how this will work, let us establish an imaginary catastrophe in the imaginary Year 1. The government --- spends --- and comes out at the end of a year with a deficit of 200,000,000 kronor. At least 20% of that, or 40,000,000 kronor, must then appear as owed --- in each successive year ---. It is never allowed to show a surplus until all of the accumulated deficits in the ordinary budget are paid off".

"The idea of a budget that is deliberately planned in the red was at first as startling to the thrifty Swedes as it would be to citizens elsewhere." This policy worked out successfully during the recent depression but "only the next depression can prove whether it will work again".

"Public works requiring big outlays that are inherently nonprofitable or only partially profitable will hereafter be set up on a 'profitable' basis by means of an intricate interplay between the investment budget and the ordinary budget. The idea is that such works should pay interest on their investment; but since many worthwhile social enterprises would be unable to earn the required rate of interest, they will be subsidized out of the ordinary budget to enable them to pay it. --- The deficiency in earnings is made up each year out of current state revenues ---. In effect, this spreads the cost of the whole business over a long period of years. The government is thus spared the necessity of writing the entire item down as a current expenditure".

E.W.L.

THE FOREST SERVICE AND AERIAL PHOTOGRAPHS

By E. S. Massie, Washington

The needs for aerial photographs have increased to such an extent in the past few years that at the present time more than 50 percent of the entire United States has been photographed from the air. These pictures have been taken for various specific purposes but, in practically every case, they have been made in accordance with standard specifications and are therefore suitable for a variety of uses.

Aerial photographs are not new to the Forest Service, several Regions having found them to afford a means of accomplishing more accurate work as well as reducing both time and costs.

Mr. James B. Yule, Chief of Surveys and Maps, Region One, should be commended for his foresight in seeing the many advantages of aerial photographs and in working with untiring effort to prove their value. Region One, as early as 1926, embarked upon an aerial photographic program and now has photographed approximately 40,000 square miles.

Region One has found over a period of six years that it has been able to do its own photography, including all the related details, establish the necessary amount of ground control, and compile planimetric maps on a scale of 2" equals one mile for the surprisingly low cost of one cent per acre, or $6.40 per square mile. While this figure may vary under different conditions, it appears that the use of aerial photographs for this purpose can be easily justified.

In Region One, a fire dispatcher desk has been designed and equipped with a set of mounted aerial photographs, a stereoscope under which these pictures may be studied, and a copy of the planimetric map compiled from the aerial photographs. This desk with equipment has proved to be a most efficient tool for fire detection, as well as for ascertaining other information relative to forest work.

When aerial photographs have been used in connection with grazing and timber surveys they have been found to afford the personnel both in the field and in the office a base on which it is far easier to work than it is on unsatisfactory maps. There are two schools of thought on the proper procedure to be followed; one prefers to do preliminary work on the pictures in the office and then go to the field for checking and additional information, while the other holds that since field work is necessary it is preferable to do all the work in the field using the print as the base. In either case the use of the same pictures, or a duplicate set, for typing, estimating, and classifying as are used in the preparation of the map itself makes the correlation of the work an easier task. This method for timber surveys has been tried not only by some of the Regions but by timber companies as well, and according to reports the results have been very satisfactory from both the standpoint of accuracy and the reduction in time.

There are still other uses to be made of aerial photographs in connection with forest problems, such as transportation planning, recreational planning, drainage area studies, bridge and dam location, etc. It may be that aerial pictures have been used by some of the Regions in connection with a particular problem of this nature. On the other hand, if the advantages of aerial photographs for use in a particular problem have not been definitely established, the cost of photographing the area may have prevented the employment of aerial pictures.

There is a possibility that with the many square miles of the country covered by aerial photography, prints may be obtained at a very nominal charge for an area in which work is proposed and the use of such prints may lead to a very substantial saving to the project.

SKIING FORESTERS

By Robert S. Monahan, Washington

In the February 20 issue of the Service Bulletin, Mr. Anderson suggested that in helping to develop winter recreation opportunities, especially facilities for ski touring, we would soon find ourselves among the skiers we were seeking to aid. Throughout the National Forests located in the snow country many forest officers have made this discovery, but the Forest Service still needs many more skiing foresters to assure the organized skiing interests that we are qualified by personal experience to appreciate the peculiar requirements of the sport.

In addition to the resulting personal enjoyment and satisfaction which Mr. Anderson described, there is the further consideration of administrative efficiency. Just as our most successful representative on forests with predominant range or timber use, all other factors being equal, is usually the man who knows stockmen's or loggers' problems from personal experience, so the most efficient forest officer in areas where winter recreation is an important form of public use would normally be the man who understands skiing as a participant as well as a spectator. Certainly he would not suffer from an inferiority complex in dealing with organized skiers.

To the man who is not content to remain on the side lines and wants to be able to talk ski language, there are at least three opportunities to learn what it's all about. First, join the local ski club. If there is no such group, organize one. Many of the country's outstanding winter resort towns and cities can trace their development to the original impetus provided by a forest officer who wanted to show his friends on a winter week end what the forest looked like under snow.

Second, recognize the utility of skis for field travel where roads are not plowed, snowshoes too slow, and snow too deep for walking or riding. More than thirty years ago forest officers were using skis on some forests for various types of winter reconnaissance. Ski-minded foresters today will find many other winter jobs which can be dispatched under certain conditions more efficiently by using skis than any other form of travel.

Third, join a ski school or, better yet, do as at least one forest did this winter and organize a training course of your own. Lacking opportunities for systematic instruction, the fact remains that there are thousands of better than average skiers who learned their turns and stops without formal guidance.

No less than ninety of our 158 National Forests are covered with snow at least sixty days during the average winter. Many of them provide a longer winter recreation season than is afforded the summer vacationist. More than a few embrace skiing terrain and snow conditions which are unsurpassed in the country.

A year ago more than a million visits were made to the National Forests by winter sports enthusiasts. Winter recreation use no longer can be considered a minor activity.

Skiing foresters can confidently and reasonably curb whatever impractical projects may be proposed by over-enthusiastic organizations. And they can effectively guide the development of those forms of winter sports which are best adapted to the National Forest environment. A winter recreation problem will then be approached less as an administrative headache and more as a pleasant opportunity to provide a needed and appreciated public service.

CATCHING UP WITH MR. BELLAMY

By Marguerite McGuire, Washington

In 1897, Edward Bellamy published his "Equality." The book was written in Boston from the viewpoint of the year 2000 (which isn't nearly so far off as it was in 1897!), and gives the reader a backward look over the years to note the social, economic, and environmental changes that have taken place in our nation.

Of special interest to foresters is a short chapter entitled "The Reforesting." I give you these quotations from the book, a bit of conversation between Dr. Leete and Julian West:

"'What do you say to chartering an air car this afternoon.'" (Look out your own window. You'll probably see the little Goodyear blimp sailing across the blue!)

"'Still we swept on mile after mile,....toward the interior.'

"'How far does this park extend?' Julian demanded. 'There seems no end to it.'

"'It extends to the Pacific Ocean,' said the doctor.'

"'Do you mean that the whole United States is laid out in this way?'

"'Not precisely in this way, by any means, but in a hundred different ways according to the natural suggestions of the face of the country and the most effective way of cooperating with them. In this region, for instance, where there are few bold natural features, the best effect to be obtained was that of a smiling, peaceful landscape with as much diversification in detail as possible. In the mountainous regions, on the contrary, where Nature has furnished effects which man's art could not strengthen, the method has been to leave everything absolutely as Nature left it...' (Notice, Mr. Robert Marshall, with your Roadless Areas!)

"'When you visit the White Mountains or the Berkshire Hills you will find, I fancy, their slopes shaggier, the torrents wilder, the forests loftier and more gloomy than they were a hundred years ago. The only evidences of man's handiwork to be found there are the roadways....carrying the traveler within reach of all the wild, rugged or beautiful bits of Nature.' (Notice, Mr. H. R. Jones with your Forest Roads and Trails.)

"'As far as forests go, it will not be necessary for me to visit the mountains in order to see that the trees are not only a great deal loftier as a rule, but that there are vastly more of them than formerly,' said Julian.' (Julian had lived in the year 1887, and again in 2000. You'll have to read the book to learn how he accomplished that feat, but he did!)

"'Yes,' said the doctor, 'it would be odd if you did not notice that difference in the landscape. There are said to be five or ten trees nowadays where there was one in your day, and a good part of those you see down there are from seventy-five to a hundred years old, dating from the reforesting!' (The U. S. Forest Service was established in 1905.)

"'What was the reforesting?' Julian asked.'

"'It was the restoration of the forests..... Under private capitalism the greed or need of individuals had led to so general a wasting of the woods that the streams were greatly reduced and the land was constantly plagued with droughts. (Ever hear of the Dust Bowl?) It was found that one of the things most urgent to be done was to reforest the country. Of course, it has taken a long time for the new plantings to come to maturity, but I believe it is now some twenty-five years since the forest plan reached its full development and the last vestiges of the former ravages disappeared!'"

In 1939, on January 15, there was published in THE WASHINGTON STAR, under the heading "Timberland Owners Urged to Conform to Forest Policy," excerpts from the annual report to Congress of the Chief of the Forest Service. Here are quotations from that report:

"The Forest Service declared yesterday that if private ownership of vast timberland domains was to continue the owners must conform to the Nation's forest policy.

"F. A. Silcox, chief forester, said the alternative was 'more control over private forest lands.' For more than 300 years, he said, American forests have been 'chopped, burned and depleted; instead of being cropped, they have on the whole been exploited and ravaged.' That must stop if the Nation is to avoid a 'wood famine' and a flooded, eroded land, he asserted.

"Mr. Silcox recommended to the previous Congress legislation to extend public regulation to curb wasteful production practices and to require replanting of cut-over lands.

"'Majority opinion within forest industries is probably against it, though some progressive leaders believe it necessary and inevitable,' he said. 'Public opinion, determined that exploitation must be stopped, seems largely in favor of it.'

"Proposals for public regulation will be placed before congressional committees, the Service said."

So it seems that we may catch up with Mr. Bellamy, if we hurry.

SLASH PINE GROWS TWO CORDS PER ACRE PER YEAR

Three hundred and nine cords of merchantable pulpwood were found on 11.75 acres of the Sam Byrd slash pine plantation, planted almost exactly 13 years ago by P. N. Howell in Jackson County, Mississippi. Quite a few of the trees have reached 10 inches in diameter in the 13 years, and the average of 2.02 cords per acre grown during each of the 13 years is considered by Mississippi Forestry Commission officials as unusually good.

The Southern Kraft Corporation is now making a careful thinning in this plantation to remove diseased, crooked, or suppressed trees. Their plan is to take out 7.2 cords per acre now, leaving 19.1 cords per acre to grow for another 5 years when a second thinning will be made. Sixty-one percent of the trees have survived to date and an average of 367 trees per acre will remain after the first thinning. - Mississippi Forest and Park News.

A RESURRECTION

By Roy Headley, Washington

The Frank J. Taylor article on "Skis in the Sky", in the March 4 edition of COLLIER'S, illustrates how ideas long dead may be revived in new forms. While Regional Forester in California, Coert DuBois made a determined effort to establish a walking vogue. He particularly tried to rouse some interest in walking trips from Lake Tahoe to Yosemite along the crest of the Sierra. With negligible exceptions, his effort met with complete failure. Americans, at least West Coast Americans, simply would not walk.

Now comes a report showing that West Coast Americans will walk and will establish a walking vogue in a big way when it can be done on skis and as a matter of sport. Sites are being located for a chain of ski shelters from 15 to 20 miles apart stretching from Yosemite to Feather River. There is even talk of establishing 100 shelters to enable a skier to make a mid-winter trip from Mt. Shasta to Mt. Whitney without spending a single night out in the snow. The Sierra Club contemplates 60 shelters between Yosemite and Feather River. The Club has actually completed seven such shelters.

To those whose enthusiasm is not stimulated by the usual sport of being hauled up a hill in order to slide down on skis, California now offers a proposal to climb Mt. Shasta in two days on skis and ride down in one-half hour. One man has done it five times. Furthermore, the idea of ski trips of hundreds of miles in length really adds up to something worth while in the minds of those who see no particular joy in plowing around over an area of a section or so and coming back to the starting point. Who says that modern Americans are soft?

WHY THE PINE TREE MARKER NEEDS PRICE TAGS

By Thornton T. Munger, Pacific Northwest Forest Experiment Station

When the Forest Service sells a batch of trees it makes an appraisal of their stumpage value. If practically all the merchantable trees are to be cut the appraiser can make one average price for the whole tract, even though the individual trees have a wide range in unit value.

Under the system of marking prevalent for many years in the ponderosa pine region, where about 80 percent of the volume and probably 95 percent of the positive stumpage values are harvested, it made little difference in the lumber value realization which immature trees composed the 20 percent reserve stand. The tree marker could act according to simple and easily defined marking rules quite independently of the appraiser.

But when the intensity of marking drops to a 40 percent cut--as recent research in the Pacific Northwest has shown to be highly desirable--it makes a great deal of difference to the purchaser's and to the timber owner's treasury which trees are marked for cutting. Big pine trees may range in value all the way from plus $10 to minus $5 per M feet. The marker could make or break the logger by including in the cut more or less of a certain class of tree than the timber sale appraiser had allowed for.

Thus a price tag must be put on every tree class and size class of tree which it is desirable to cut and the marker quite rigidly adheres to the same proportion of each class that was assumed in the appraisal.

Does this mean that the tree marker has become mercenary and is letting the dollar sign control him instead of the high ideals set up in the Act of 1897? No, it merely means that growing and selling public timber is a business and that the silviculturist has got to use business methods in fixing a value tree by tree when he is practicing 40 percent selectivity in cutting trees whose range in value is very great. Though the marking rules may specify that trees with certain price tags will be cut, the criterion for drawing up the marking rules is the maturity of the tree. And "maturity" in an inseparable combination of biologic and economic factors.

GRASS FOR THE WEST

The Farm Journal (March) contains a short article on work at the Fort Hays (Kans.) Experiment Station in getting semi-arid western land back to grass. "In January," it says, "Supt. L. C. Aicher announced methods which look like a solution. The methods as worked out by forage crops specialist Leon Wenger and his men make use of two grasses found on the semi-arid western plains, blue grama and buffalo grass... Blue grama is more drought resistant... Buffalo grass likes more moisture... Grama seed is lighter than its straw, therefore impracticable to thresh. Buffalo grass is hard to get, too, because the plants have a tendency to spread out close to the ground. To solve the seed-gathering problem, investigators started selecting plants of buffalo grass which grew up high enough for harvesting. Strains were selected for seed bearing. Since the seed of grama could not be threshed economically, investigators started planting the seed-bearing grass itself, mixing in buffalo grass. The selected varieties of buffalo grass grew high enough to cut—nine inches or more. The tested method at the Fort Hays Station is to spread the hay on the ground with a manure spreader and punch it into the soil by means of a packer which has narrow, diamond-pointed wheels about an inch wide and six inches apart. After the packer has gone over a field, the straw sticks out of the ground much as it does on a wheat stubble field. This condition prevents soil and water erosion..." - THE DAILY DIGEST, February 27.

THE EDITOR DISCOVERS

Mr. Silcox's message to the Influences Seminar, held at the San Dimas Experimental Forest February 12-27, and the Conference's message to Mr. Silcox are quoted below:

"The Influences Conference scheduled for the next two weeks promises to be of outstanding value in bringing about a meeting of minds on many vexing water problems. With watershed protection as one of our basic management responsibilities a research program designed to meet basic problems is essential but no less needed are ways of translating research into current management practices. The joint discussion by station and regional representatives holds promise of a real appreciation and evaluation of our water and erosion questions. Those of us who cannot attend send our greetings and wish the conference every success" - Silcox

"Representatives of Research and Administration attending Forest Influences Conference greatly appreciate your stimulating message of February 13th. In discussing various watershed problems we have constantly kept in mind your emphasis upon translating research results into practice. We are approaching watershed problems with an open mind and a cooperative spirit. Opinions on these problems are being fully aired. We believe our recommendations will be of real value to the entire Forest Service in meeting its true responsibility for adequate watershed management on National Forests and other key lands" - The Forest Influences Conference.

- - - - - - - - - - -

Director Fechner has again this year expressed the hope that each CCC camp will observe the Corps' anniversary by holding "open house" celebrations to which the public would be invited, or by other appropriate exercises. The period set by the Director for camp observances of the Sixth Anniversary is from March 31 to April 15. However, April 11 has been set as the date for the annual birthday party in Washington.

The following radio broadcasts dealing with the CCC's Sixth Anniversary have been scheduled.

At 9 p.m. (EST) on April 3, Mr. Fechner will participate in the WASHINGTON EVENING STAR'S Radio Forum, which will go over the coast to coast Blue Network of the National Broadcasting Company, originating from WMAL, Washington. At 12:35 p.m. (EST) on April 7, over the National Broadcasting Company's Farm and Home Hour, Uncle Sam's Forest Ranger program will be a celebration of the Sixth Anniversary.

- - - - - - - - - - -

The Board on the Forest Fire Foundation met on March 3 and considered about twelve cases that had been recommended for the American Forest Fire Medal, three of which were approved. Present plans are to make these awards at the time of the annual dinner of the American Forestry Association in Washington on March 22.

- - - - - - - - - - -

The University of Minnesota is offering in-service fellowships in public administration for young men and women who have had three years of Government service, for the year 1939-40. The fellowships will carry stipends of from $1000 to $1500 for the year. Applications may be obtained from the Public Administration Training Center, University of Minnesota, and they must be filed before April 1.

- - - - - - - - - - -

More than 100,000 young men and war veterans will be enrolled in the Civilian Conservation Corps during the period April 1 - April 20, 1939, to fill vacancies left by enrollees who have been discharged to accept employment, or for other reasons, since January 1, 1939, according to a recent press release issued by the Director's office.

The April enrollment will be the largest of any undertaken by the CCC since the enactment of the Act of June 28, 1937, extending the life of the Corps for three years and placing a limit of two years on the time that an enrollee could remain in the CCC. While the law authorizes the enrollment of young men between 17 and 23 years of age, preference will be given in the April enrollment to young men who have passed their eighteenth birthday.

- - - - - - - - - - -

Officials of Mississippi State College recently announced addition to the curriculum of a Lower Division Forest School, effective with the 1939-40 session, according to an item in the "Clarion-Ledger", Jackson, Miss.

Installation of the forestry curriculum will afford Mississippi students with the opportunity of attaining two years of undergraduate work in this field, after which they may transfer to any of the 20 colleges over the Nation which offer degrees in forestry.

A 90,000 acre forest, part of which is controlled by the Biological Survey, chiefly as a game reserve, and part by the college, is included in facilities to be used for practical training.

- - - - - - - - - - -

CONGRATULATIONS DUE

Two of the draftsmen in the Division of Engineering of the Washington Office have won one of the prizes of $100 in the Productive Home Architectural Competition sponsored by the magazine "Free America" and several research foundations in family life.

The draftsmen are Rudolph Wendelin and Malvern B. Pennock, who cooperated in the preparation of the design submitted. The winning of this prize makes them eligible for competition in a final contest, offering a prize of $1,000 and Engineering is rooting for them in this final test.

The plan of the house submitted, and arrangement of service areas in the one and one-half acre plot, consisted of a design to meet the requirements of a semi-rural productive way of living. The house was planned for a family of five, whose annual income of $2100, earned by the father commuting to a nearby city, was supplemented by funds received in savings and profit from a chicken yard and home-grown fruits and vegetables.

NEW BEER TO SPREAD FAME OF MANISTEE

"An announcement today of a new product by a local concern revealed that through this medium the fame of the city and the nearby Manistee National Forest will be spread far and wide throughout Michigan and even into nearby States.

"The publicity-spreading product is 'Manistee's Export Beer', manufactured by the Manistee Brewing Company, a companion brew of the Chippewa beer which has been produced since the brewery started operations under its present owners.

"The new attractive label also carries mention of the Manistee National Forest, with the statement 'Water From Artesian Wells in the National Forest', an appropriate slogan because of Manistee's high interest in the new federal tree tract.

"The sparkling, tangy new brew is darker and heavier than Chippewa beer, with a higher hop content and should meet with popular favor. It will be available locally tomorrow and shortly after that it will start carrying the name Manistee to other cities throughout the state." - News - Advocate, Manistee, Mich, February 23.

"The Beer That Made the Manistee Famous" - Ed

9
F76W

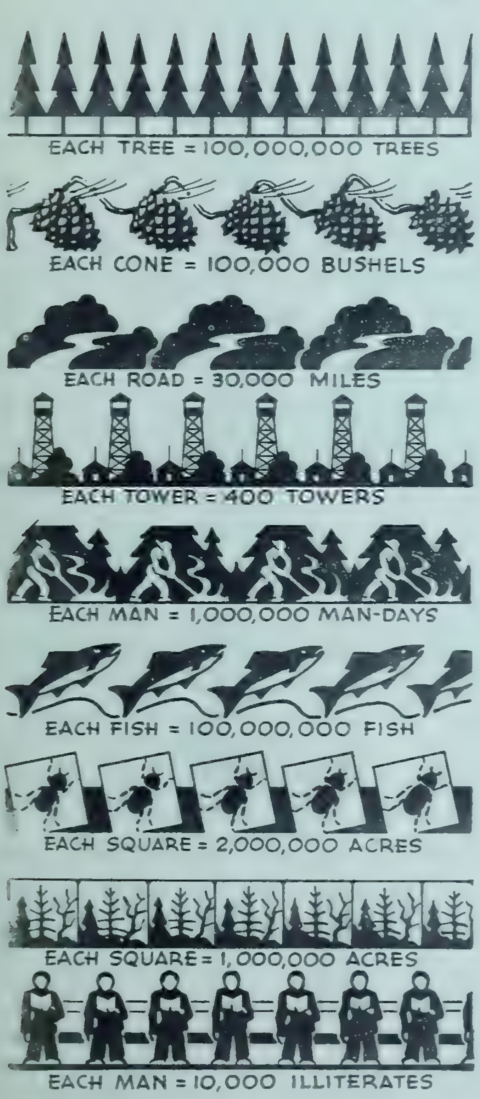
LIBRARY
RECEIVED
APR 8 1939 ☆

SERVICE BULLETIN

Volume XXIII
Number 7

Washington D.C.
Apr. 3, 1939

What the CCC has done for America:



---------- 1¼ billion trees planted

— ½ million bushels pine cones gathered

-----96,000 miles truck trails built

---- 2500 fire towers constructed

---4 million man days fire-fighting

----465 million young fish "planted"

---10 million acres of "bug control"

--6 ¾ million acres tree disease covered

—73,000 illiterates taught to read and write

- plus 159 other types of work!

CCC ACTIVITIES ISSUE

CCC AND FORESTRY

By Robert Fechner, Director, Civilian Conservation Corps

As this sixth year of Civilian Conservation Corps activity draws to a close, I am glad to take this opportunity to pause for a moment and review briefly some of the major accomplishments in forestry made possible by the careful planning and supervision of the United States Forest Service and the hard and conscientious workmanship of the young men and war veterans of the CCC camps.

I do not believe I am exaggerating when I say that the launching of the CCC gave forestry, both federal and state, the greatest impetus it has ever had. It is not too much to say that federal and state plans for developing, expanding, and protecting their forestry resources have been advanced from fifteen to twenty years. New tree nurseries have been developed and old ones expanded to increase enormously the annual output of tree seedlings. New forests have been planted and increased protection built into millions of acres of forest lands. Large areas in the National Forests have been improved for tree growing, and simple recreational facilities have been developed to satisfy public need.

Prior to the establishment of the CCC camps, the United States Forest Service never had been able to obtain sufficient funds from Congress to advance the large scale conservation programs that the Nation needed if its wealth of natural forest resources were to be protected, developed, and managed in the best interests of all the people. Annual appropriations prior to 1933 failed to provide funds for making even a beginning on the task of reforesting huge areas of cut-over and burned-over lands that had been laid waste by forest fires and by logging. Neither were funds made available to build urgently needed fire detection, communication, and transportation improvements.

But notwithstanding the meager appropriations with which it had worked, those in charge of the Forest Service had never given up hope that one day funds would be forthcoming. In preparation for such a day, long range development plans were prepared and maintained constantly up to date. Thus, when the CCC suddenly made available a huge supply of manpower, together with the necessary funds to keep these men at work and to purchase necessary materials, the Forest Service was ready. Under the leadership of "Bob" Stuart, a real friend and an outstanding forester, the Forest Service agreed to put men at work as fast as they could be transported to the forests. In the beginning, the Forest Service was given the bulk of the camps. Later, the percentage of camps assigned to national, state and private forests was reduced, but our records indicate that the Forest Service always has had about one-half of all CCC camps in operation.

It was a good thing for the CCC that the Forest Service was wide awake and ready when the CCC opportunity came. Forest Service officials from F. A. Silcox, Chief of the Forest Service, and Fred Morrell, Department of Agriculture representative on the CCC Advisory Council, down to the lowest paid foreman in the CCC camps, all have worked enthusiastically to obtain the greatest possible public good from the funds and manpower made available through the CCC program. They worked to advance conservation but they have not neglected to do everything they possibly could to aid the unemployed and often inexperienced youngsters sent to the CCC camps. The counsel and the painstaking thoroughness with which youngsters were taught to work and to work efficiently have helped to turn the raw, human material of the CCC into sturdy manhood, capable of making its own way. Working in close cooperation with Camp Commanders, the Camp Educational Adviser, and other camp officials, the Project Superintendent and his aides helped to make the CCC the builder of men that it is today.

I could list some of the large forest accomplishments of the CCC but most of these are known to every permanent Forest Service and CCC officer and employee. Each of you knows how the output of tree nurseries has been stepped up to the point where a half billion trees could be planted annually. All of you know of the thousands of miles of truck trails, the thousands of miles of telephone lines, and the thousands of fire lookout towers that have been built into the forests as a protection feature.

In closing, I want to urge upon all Forest Service personnel assigned to the CCC camps the necessity for the greatest vigilance in protecting the lives of enrollees, in maintaining and expanding work production and in affording the enrollee every possible opportunity to learn skills and to acquire knowledge which will aid him in making a success while in the Corps and after he leaves. In my opinion the future of the CCC depends upon the use which we make of it. It has been of the greatest value to unemployed youth. It has aided the Nation by increasing the value of its forest assets. It has the favorable opinion of the public and it will keep that opinion so long as those responsible for the administration of the CCC and the prosecution of work projects keep up the high standard of performance which has characterized the first six years of its life.

OUR CCC RESPONSIBILITIES

By Fred Morrell, Chief, Office of CCC Activities (USDA)

About 1,587,000 young men and veterans have been enrolled in CCC camps allocated to the Department of Agriculture during the past six years. They have put in a total of more than a million man-years working under the supervision of federal and state officers with lines of responsibility heading up finally to the Chiefs of the Cooperating Services and Bureaus of the Department.

It is hardly an exaggeration to say that every man and woman, including especially the Project Superintendents and Foremen, who has worked in these Bureaus during this six-year period has had a part in the great project of training these young men for work and citizenship. Some of us have given our entire time to the project, many others have given part time, and all of those who are a part of the regular organization, as well as the Emergency Employees, have filled their places as employees of the Department. It is the Department and the cooperating Bureaus that have done the job and we are all a part of it. We should all, therefore, feel a measure of satisfaction or of disappointment, as we individually view results, over what has been accomplished.

During a long experience in the Department I have not participated in any project that seems to me to be nearly as big or as vital in its social, economic, or political aspects. CCC expenditures might be divided into three parts somewhat nearly equal to each other. One part goes for relief of families in economic distress, one to the training and development of enrollees, and the third part might be charged up to the value of work performed. The equivalent of about one and a half million men have worked for a year on conservation projects which under the division of expenditures suggested above have cost more than a billion dollars. Conservation officials have been solely responsible for selection of work projects on which this over a million man-years of labor have been employed. Public opinion has on the whole supported our project program and our execution of it.

But we also have a heavy measure of responsibility for the best use of that part of the expenditures which may be charged against enrollee training. And training of enrollees in conservation and in citizenship is in the long run of more importance to conservation itself than is the work they do. The CCC camps have been largely engaged in repair of some of the damages due to unwise or "non-conservation" use of natural resources. While we have been at it probably more trees have burned than we have planted and certainly many more tons of top soils have gone down the river than we have saved.

Natural resources cannot be conserved merely through the repair of damage method. Wise use is the only method that will succeed and unless conservation profits more through CCC teaching and example than through CCC work accomplishment, we shall not have done a good job.

We then have two major functions, - to train boys for useful work and good citizenship, and to conserve natural resources. In planning for the latter we try to select areas that need it most. We should do the same in planning for the other; i.e., select boys who most need CCC experience. That means boys who most need discipline and most need to be taught the rights of others, and how to adjust themselves in our social, economic, and political life. Such fellows on the average will give us more disappointments and less returns in work accomplishment than would those who are already adjusted and who know how, and are willing to work. But we don't plant an area that will reforest without planting because it would be easier and trees would grow faster, and we should not run the CCC for boys who can be as well or perhaps sometimes better trained for life without it. I hear foresters, soil engineers, and biologists talk much of the age, type, and background of boys who are most satisfactory from the work accomplishment standpoint, but not so much from the standpoint discussed here. Are we studying and thinking about it, and expressing ourselves? And are we making the CCC as effective in preventing loss of natural resources as in repairing that loss?

REGION FIVE'S OPINION OF THE CCC

By S. B. Show, Regional Forester

Giving an opinion of the Civilian Conservation Corps is like saying what you think of a man who has been at your right hand whenever you needed help and who has done more in the last 6 years to advance your interests and improve your property than has been accomplished in the previous 20 years. We had need of this Corps long before it was in existence. We like it and we want more of it, bigger and better, in the future.

Everyone knows that the CCC was an experiment in rehabilitation, education, and the conservation of human resources combined with conservation of natural resources. The enrollees were gathered from the depths of want and despair and sent into the woods to do, as President Roosevelt said, "necessary and useful work." They certainly have fulfilled that contract. For the past 6 years this Region has acknowledged the part the CCC has played in reducing by 40 percent the average acreage burned annually in the National Forests of California with a corresponding reduction in damage to the natural resources. We have been glad to tell of the 80-odd kinds and classes of work done on the forests. Our records show that at the end of last fiscal year the CCC in the California National Forests had, just to mention a few items, put in 546,012 man-days fighting forest fires, 5,786 man-days searching for lost persons or other rescue work; built 6,441 miles of truck trail mainly for the protection of the forests, 2,300 miles of firebreak, 480 vehicle bridges, 14 large dams, 118 lookout stations, covered 31,200 acres in blister rust control, 36,700 acres in insect control, 1,070,230 acres in rodent control, and clearing 11,022 acres of camp and picnic grounds.

But the CCC, being a human experiment, cannot be gauged by statistics. Like the work of foresters in the woods the real value of the CCC in character building and citizenship will be apparent only in the future. There is plenty of evidence to prove that this phase of the experiment will be as successful as the part played in the protection and development of the National Forests.

One of the objectives was the preparation and training of these boys for work of any kind after they completed their enrollment. During the revival of industry in 1935 it was difficult in the southern California forests to retain CCC boys after they had been trained to handle road building machinery. Private contractors would hire them. The Pacific Telephone and Telegraph Company and General Motors kept a record of the boys on line work and motor repairs on some National Forests and hired the CCC apprentices in favor of other applicants. There is no way of knowing how many boys have obtained work and promotions as a result of their Corps experience, but it is safe to say that an ex-enrollee has something to offer to the private employer.

Perhaps one of the best means of getting a picture of what the CCC is like, what it does, and what it means from a human angle is to give quotations from two news items written in the past year. One is from a National Forest news release and the other from the press. They are only samples of what has been written time and again in previous years.

"CCC fire suppression men from Rush Creek arriving at a fire in the rugged Bald Rock country found Finnerman, a miner, with a broken leg and head injuries, just out of reach of the fire....CCC men suppressed the fire and aided in splintering the man's leg. Later they got him to a hospital." (Plumas.)

"One of the great ideals of the Civilian Conservation Corps, that of SERVICE to the Nation in times of emergency, was upheld in an extreme degree by two young enrollees from Dalton Canyon Camp (Angeles) who met death while trying to perform a humanitarian service for marooned and injured victims of the recent southern California flood disaster. Their death was the result of an accident, but an accident put within the range of probability by the hazardous nature of the work they were called on to perform....They were just doing their duty and in the CCC that is not unusual. However, it is such instances which build honor and tradition in our own CCC Hall of Honor." (News Courier, L.A. District.)

The flood disaster referred to was that of March 1938, causing property loss of $50,000,000 over an area of 30,000 square miles in southern California. In December 1937, a flood occurred in the central Sierra region where the CCC in the Tahoe Forest rendered invaluable assistance at the peak of the catastrophe and then helped with rehabilitation work.

The instances where the CCC has been called on in forest fire emergencies would fill a large volume. Over 2,000 boys from 34 camps were used on a large fire in 1935 which burned outside the National Forests in southern California. In July 1938, a series of electrical storms occurred in northern California, which set a new all-time record for 33 years of Forest Service protection. On the Shasta, Klamath, and Trinity Forests 366 lightning fires were fought in rough, almost inaccessible country. Most of the 2,500 fire fighters were CCC boys.

Well fed, well equipped, young and husky, the CCC boys are far different from the old time crews formerly recruited from the city employment agencies or routed from the "jungles" when the Forest Service needed men.

The CCC enrollees are given excellent instruction in large centralized camps. In many instances local school officials in cooperating with the Army educational adviser and the Forest Service provide exceptional educational facilities. Many camps run regular courses, based on standard curricula from the first-grade through high school. Enrollees can prepare for academic or technical subjects or can enroll in numerous shop courses. Every camp has its school building; many have well equipped shops. One National Forest CCC camp runs a regular trade school and university combined. By means of continuous job training, off-the-job education and instruction, and regular habits, conservation of human resources is being practiced. And that is mighty important.

The Civilian Conservation Corps may not yet be perfect. There are some things which could be improved. But we think, out here in California, that if the National Forest CCC camps were used only for fire protection the CCC program would still be well worth while.

THE CCC FROM A LIAISON OFFICER'S POINT OF VIEW

By Stanton G. Smith, Liaison Officer, CCC, Third Corps Area

The Liaison Office was set up in 1933 to serve at the nine Army Corps Area Headquarters as the connecting link between the Using or Technical agencies and the Army. The Army did not understand the civilian departments' ways of handling matters, and the civilian agencies understood even less about the Army's points of view, practices, and policies. There were many conflicting viewpoints and policies which had to be coordinated and smoothed out. The Liaison Officer had to know both sides, had to have sympathetic understanding, forbearance, tact, and forcefulness - and above all, diplomacy. Fortunately most of the early misunderstandings have been cleared up and there is now a sense of the mutual dependence between the War Department and the civilian departments. This has aided in maintaining the proper perspective on new problems that constantly arise. Liaison work consists now in making possible the continuance of this friendly understanding, and especially in looking for new ways for betterment of operation of the Corps. Experience of the past must be evaluated and changes suggested that may assist in promoting the interests of the Corps as a whole.

The CCC has received widespread public approval, yet we all know there is room for improvement. In the matter of inter-agency contacts, experience has shown that when inspectors and other officials visit the camps, they can promote such friendly relations by always calling upon both the Camp Commander and Project Superintendent. It is believed that any CCC headquarters office will welcome calls from CCC officials of other agencies whenever they are in the vicinity, to become better acquainted and to exchange information and views. Benefit may be derived also through closer contacts with the various selecting agencies of the Labor Department, with the object of getting the best type of enrollee and to make sure all selectees know something about the work and living conditions in the camps.

Enrollee welfare, creation of higher ideals, maintenance of morale, improved training methods, work efficiency, safety and educational facilities are subjects worthy of further study, as we all realize. Welfare is an important phase in the program, not only as a means of building up useful citizenship but also as a positive aid in the work programs, as output is closely related to contentment and interest of the men. Recreational trips, camp movies, athletic programs, and support of Army discipline justify the hearty backing of all officials, because of benefits that come from an improved esprit de corps. Because of the youth and background of many enrollees, sympathetic understanding and great patience must be exercised by supervisory officials. Attention to these things builds up company morale, an important element in reducing desertions and discharges. The example set by supervisory employees in personal conduct, neatness of dress, orderliness in office and quarters helps mightily to win the respect and cooperation of the enrollees. The extent to which such conditions exist in any camp is usually in direct proportion to the work accomplished in the field.

Enrollee education is a most difficult problem for the camp personnel. However, entirely outside the direct social benefits to the boy, the success of the educational and training program has a direct bearing upon CCC permanency, so the responsibility for this activity must be recognized and met. An active camp educational and training committee is the very foundation of a successful program, but unfortunately the value of this committee has not been fully recognized in all camps. The wide fund of knowledge possessed by the technical personnel must be fully organized and used. It is probable that interest in job training and training on the job may be better stimulated among enrollees by clearly presenting and driving home the value of training. The importance of this training in the winning of a job, in the face of today's tremendous competition, should be brought forcibly to the attention of the enrollee.

Since CCC education is voluntary, some means must be found to attract enrollees to mental improvement. Instead of a wide list of subjects, a few outstanding courses might well be selected upon which the camp can specialize. These should be based, of course, on the local facilities and experience of the camp instructors, as well as on the capacities of the enrollee. It is of course impossible to turn out enrollees as skilled workmen, but we can meet our responsibility if the majority has been supplied with sufficient training to permit them to speak the trade language and to be so equipped that they have a fair chance of employment as helpers or apprentices, and above all, that they are not afraid of work, will do their best on any job given them, are dependable, and cheerful and respectful to their elders.

Finance is probably the most important problem facing the CCC at this time, and how these funds are spent will determine the extent to which the organization is given public approval in the future. Approximately $150,000 is required to operate a camp for a year or, expressing it another way, the cost runs around $900 to $1000 per enrollee per year. Since there were four applicants for each vacancy during the last enrollment period, it is desirable to weigh carefully proposed expenditures to determine not only the most effective use of funds but also to see if CCC benefits can be extended to a wider group at no increased cost.

When the President started the CCC program early in 1933, he proposed that it be confined to "forestry, the prevention of soil erosion, flood control, and similar projects." However, during the past five years a large proportion of CCC time and money has been spent in the construction of roads, bridges, dams, and buildings of all types, all involving heavy material and equipment costs, as well as heavy maintenance. Pressing needs for structural improvements now should have beem met, and it seems to me that in the future the CCC activities might be better used in accomplishing the aims originally set forth by the President, by undertaking in a larger way activities such as stand improvement, forest extension, soil erosion, and up-stream flood control. Projects of these types require small capital investment, and practically no annual maintenance. Therefore, if true forestry is given a major place in the CCC program, substantial savings would result. This will permit an increase in the number of camps and the spreading of the advantages of CCC experience over a larger number of boys, who otherwise must be denied this opportunity.

VALUE OF THE CCC PROGRAM FROM A FOREST SUPERVISOR'S VIEWPOINT

By Fred Winn, Coronado

From Maine to California, what Forest Supervisor can view the work of the Civilian Conservation Corps, present, past, or future without high commendation? Prior to the inception of the Corps, which one of us had not been compelled to squeeze every two-bit piece until the eagle screamed, in order to construct a fire tower, or to paint a decrepit ranger station dwelling, or to complete a much needed range improvement or a public campground?

We have come a long way from that day early in the spring of 1933 when a wire from Washington was presented to our startled gaze, advising us to be prepared to receive about 400 young men within a period of ten days or two weeks, with no adequate supply available of tents, nor mess equipment, nor trucks nor tools and no campsite, nor water supply selected. Compared with the present day's smoothly functioning organization, we have indeed come a long, long way. In those first hectic days in 1933, came a more or less bewildered group of regular Army officers, searching for available sites and preparing hasty reconnaissance reports, some of which incidentally, included such statements as "a locality which is a practical wilderness, far from a source of supplies and communication, inhabited for the most part by prairie dogs, rattlesnakes and bears, among which lives a scattered group of settlers." From another source came a telephone call from a harried Chamber of Commerce Secretary who declared with emphasis that "No CCC camp in our vicinity is desired as it was known the members were recruited from the lowest dregs of society and the entire community would be endangered." This same Secretary, a year later, was one of the most insistent that CCC camps be located in his bailiwick! Consider too, the Army officers and the foresters who had to adjust their widely different training and background and how well they measured up to the situation. The differences which arose between the first group of Texas enrollees of both white and colored persuasions who brought with them all their local prejudices; the first veterans' company which staged a near riot because they had "been fed up with Army officers during the War" and did not propose to undergo any such domination in the CCC. These and a hundred like incidents doubtless occurred on every Forest.

Looking back over 5 years, one can at least admit that life was not monotonous during the first 100 days. All these difficulties and conflicts in fact served as a stimulus and incentive to carry on and see the thing through. There followed the period of adjustment tempered with experience in which difficulties were ironed out and the CCC became the efficient and publicly acclaimed organization which it is today.

This peace-time Army has accomplished in 5 years work within the National Forests which, under normal conditions, would have required a period of 10 or 12 years to complete. Vastly of more importance than the record of work accomplished has been the moral upbuilding, and the instilling of a spirit of self-reliance, discipline, and self-respect among hundreds of thousands of young men who through no fault of their own had become the innocent victims of the great depression. To thousands of them, too, has come the opportunity to better their education and frequently to learn a useful trade and finally to secure private employment because of the very reason of their "stretch" in the CCC. In returning to their homes, these young men have done missionary work of incalculable value to the cause of conservation of natural resources. At long last, the American people who have been the most wasteful of their natural resources of any group since mankind was driven out of the Garden of Eden, are beginning to see a great light. Who can say the Civilian Conservation Corps has not been the beacon which first lighted the way out of the wilderness of waste and destruction? The thousands of miles of truck trails, the acres of forest cultural improvements, the vast areas which have been saved from forest fires, the bridges, dams, campgrounds, the revegetation and soil conservation and tree planting accomplishments, all these and a multitude of other improvements have built a monument to the CCC which will live as long as the Republic exists.

The future as usual is unpredictable. This much may be said: The vast majority of the people throughout the Nation have a genuine interest in the continuation of the Civilian Conservation Corps. In spite of its past accomplishments there yet remains conservation projects so vast and of such value to the Nation that a generation can come and go before the needed work is completed.

If a Kipling were alive today, he doubtless would be inspired to produce another recessional in honor of the youths of the Civilian Conservation Corps who, in truth, now hold "dominion over palm and pine."

THE FOREST FIRE MEDAL

By Jno. D. Guthrie, CCC, Washington

Something brand-new in American forest protection circles was recently started with the movement to raise sufficient funds for the American Forest Fire Foundation. This Foundation is managed by a Board which passes on cases for awarding the Forest Fire Medal for heroism in fighting forest fires anywhere in America (including Canada and Mexico).

The aim is to raise a minimum of $3,000 by voluntary subscriptions with which to set up the Foundation. The Foundation and the medal have been approved by the National Forest, Park, Soil Conservation, and Indian Services, and the CCC. The Board is made up of 5 representatives chosen by the American Forestry Association, Association of State Foresters, Society of American Foresters, Charles Lathrop Pack Forestry Foundation, and the National Lumber Manufacturers Association, which agencies are sponsoring the Foundation. Contributions are being received now by the American Forestry Association, which acts as the business manager of the Board. Any and everyone interested in forest fire prevention and control is asked to contribute.

Small amounts from a large number of contributors are preferred to larger amounts from a few. Incidentally, no subscriptions have been received so far from CCC camps. Each camp might care to contribute $1.00 to the Foundation.

Standards for the medal have been purposely set very high and positive evidence (affidavits from eyewitnesses or persons having personal knowledge of the circumstances) is required. Saving of human life and forestry property by the performance of heroic acts on an actual fire is the primary requisite. The medal may be awarded to any person, official, or private citizen.

The first awards of Fire Medals were made on March 22, in Washington at the annual dinner meeting of the American Forestry Association - to the following men:-

Urban J. Post, District Ranger, Bighorn Forest, Wyoming.

Paul E. Tyrrell, Posthumously, former Junior Forester and CCC Foreman, Bighorn Forest Wyoming. Handed to Congressman Carter at request of the Tyrrell family.

That for Bert A. Sullivan, B. P. R. Temporary employee, Cody, Wyoming, will be made this summer near Cody.

Fire Medals were awarded to these men for heroic acts on the Blackwater Fire, Shoshone Forest, Wyoming, on August 21, 1937.

Forest and Park rangers, guards, patrolmen, federal and state, CCC, employees of Indian and Soil Conservation Services, Division of Grazing, as well as protective Associations, and private citizens, are all eligible for this Award, upon presentation of evidence of heroic acts.

NOW, THERE IS ONE CHANGE I WOULD MAKE ......

By Ranger W. W. Bergoffen, DeSoto

I have worked in and with CCC camps in Tennessee, Georgia, Alabama, and Mississippi. As my CCC experiences flash through my mind, I can think of only one change I would make in the organization if I were in a position to make any changes.

The CCC boys with whom I have worked came from the slums of New York and New Jersey cities, from the poor sections of southern cities, and from the farms and mountain homes near the various camps. Each one of them, regardless of his home location, was made to profit from his CCC affiliation. In some little way, at least, he was a better boy for having been a CCC enrollee. To one, a toothbrush and soap opened new vistas of personal hygiene; another gained new strength, mentally and physically, and so was helped along the path to new, fine ideals and good citizenship; another learned a definite art or labor and fell properly into the industrial scheme of things when he left his camp; still another became imbued with love of the forest and the work therein and found, for himself, a favored place in that environment - how permanently, remains only to be seen. All of these boys received food, clothing, and money; the money helped, inestimably, the many folks at home. I would not change the organization in any way that might disrupt the good it is doing, in its present status, for the CCC enrollee.

My fight is for the CCC Foremen; my change would affect them. A disgruntled lot are most of the Foremen I have known. Disgruntled through no fault of their own. Disgruntled, too are their superiors, the Forest Rangers, who must salve the feelings of their personnel, if the "job" is to be finished and the organization is to look "smooth" on the surface at least. These Foremen are not disgruntled as a result of the money they are paid for their services; most of them agree that they make rather good money. Nor are they disappointed in their work; the majority of them would gladly dedicate their lives and services to the CCC and to the Forest Service if they could. I have known but few slackers among the many CCC Foremen with whom I have come in contact.

No, it isn't the money, usually ,nor the work that causes the unrest I speak of. It's just that the average CCC Foreman loves his home and his family as much as you and I do, and that the past 5 years of CCC activity have robbed him of the ordained pleasure of being "home with the wife and kids of an evening". I have known times when Foremen were away from home months on end during a fire season. I recall that such enforced absence from home helped neither them, nor the organization, nor, finally, the Forest itself. I feel, very strongly, that this condition can and should be remedied. And if the organization becomes permanent the factor of "home-life" should be given a prominent place in the set-up.

You may talk of the grand camaraderie which exists when men gather around the stoves in the barracks at night; such get-togethers lose their flavor as a steady diet. And you may say that at any rate the Foremen are earning the money so that their loved ones may be fed, housed, and clothed; I say that is not enough. I will grant that the money has helped most of them out of tough spots but at too great a sacrifice to the normally accepted ideals of home life.

In my permanent CCC organization I would have the camp plan include housing facilities for the camp personnel. There would be less incentive then for foremen to want to leave camp. They could eat then as they wanted and of the food to which they have been accustomed for long years. Out of such housing provisions would come the desired feeling of happiness in home and in work. I believe, too, that the feelings of the personnel would need "salving" less often, that the "job" would be finished, and that the organization would achieve the true smoothness, so often talked about and as often unattained.

We talk of personalized organization. Here, then, is a step closer to that grand ideal. To those who would argue, "Yeah, and let the women run the camp?", I would reply, "Are we sheep or men!", and risk it........

CCC NEWS - HOW TO SPREAD IT

By Stephen C. Manning, CCC, Washington

We have a habit of bending over backwards. We are not taking morning exercises, either, when we do it. We are being modest.

Modesty is a virtue, but there can be a limit even to virtue. These days and times, when public attention is being coaxed, cajoled, and screamed at by radio, newspapers, billboards, magazines, movies and now even television, too much modesty is like a little bird cheeping in a thunderstorm.

We are hearing much talk these days of a free press. A free press is of value only if it is used freely. That doesn't mean that the editor of the Local Gazette is going to print a long-winded feature article every week about the supersplendid work Camp F-802 is doing. But it does mean that the same editor should know and be able to evaluate the worth of the work being done by Camp F-802, which will result in a steadier flow of short news items, and intelligent editorial comment from time to time.

This means that the Editor deserves the Facts.

Facts are what keep newspapers — if they are worth their salt — going. Facts are the foundation of a newspaper—— opinions are just the decorations made atop the foundations.

The fact that Camp F-802 is working in Zitts County on fire protection, reforestation, a little nursery work, and so on, is well known perhaps --- to every man in camp and to the Regional Office. But is it widely known in Zitts County? Suppose we check up. Some project Superintendents can put a check mark opposite each question. Others cannot.

Do the good people of Zitts County know where the boys are working other than within the camp confines? From week to week? Do they know just what these boys are doing?

Do they know how the work being done affects their community? Do they know these boys are getting job training as well as just jobs?

These points are in addition to general information about CCC - they represent news about the work which is not the responsibility of the Educational Adviser or the Army -- but of the Supervisory staff.

Point No. 2 about this bending over backwards business: Isn't it that we are afraid people will think we are trying to high-pressure them? That the job of Government is not to go about whanging the bass drum on a publicity campaign? If so, the situation needs some clarification.

Good will is not created -- nor, what is more important, is it maintained purely by publicity. It can come only by genuine public opinion, based on accurate information on good work well done. Certainly it is a good idea to have the local chamber of commerce, the Kiwanians, the American Legion, and other civic bodies know about your camp. But you are not trying to kid them. If you do, it will be just too bad. But part of the job of the camp is to inform them, and to inform all other citizenry, organized or unorganized.

The local editor is the man to do this. Give him the facts, or make it easy for him to gather them himself; explain to him the importance of the camp's work, show him the accomplishment figures and, if you can get together on it, take him (or his reporter and/or photographers) on the actual work projects and into the job training sessions.

The CCC is an accumulation of facts --- interesting facts, vital facts, because they deal with real people, doing real things. Professional writing men know how to present these facts -- if they can get them. The moral is simple.

ABOUT THIS TRAINING - - -

By G. H. Hieronymus - CCC, Washington

While the CCC work program has remained much the same since the beginning of the Corps, the training program has gone through many stages of development. Questions are arising as to what direction CCC training will take and how far the work, agencies will go in training enrollees.

Perhaps no one can predict definitely the features of a future enrollee training program. By an indirect method, however, one can arrive at a general idea of the kinds of programs that will be operating within the next few years or on a permanent basis.

In CCC training, what we can look forward to is based largely on past experience and on significant trends. The trends that show the direction being taken by education and training are:

1. Less emphasis on academic studies in the general camp educational program: For a time much effort was expended in trying to build up extensive academic programs, and camp curriculums were widely inclusive, often approaching those of colleges. At present, less interest is manifest in academic programs and in advancing enrollees in academic courses if they have acquired the fundamentals of the "tool" subjects.

2. Less activity in handicraft and hobby activities as a feature of the educational program: There was a tendency during the Corps' early years to overestimate the training value of hobby and leisure-time activities. Slowly, handicraft activities are being recognized in their true relation--as hobby and recreational features.

3. Present trend is toward more practical instruction in subjects of sound vocational nature: As a rule subjects are given which have practical value or recognized vocational merit. Only subjects of this nature are now given in the work agencies training program.

4. Tendency is to center the training program around the project work and equipment found in camp: The work projects, with such equipment as is used, have always been recognized as the center of the job-training program, but project work is coming to be recognized as a basis for the entire vocational training program.

5. Systematic and planned training of enrollees to do project work is replacing casual methods: Training on the job that is planned and given according to approved training methods shortens the training period and increases the efficiency, and indirectly the en-enrollee's employability.

6. Increasing number of technical agency personnel giving off-the-job courses: At present, 85 percent of the supervisory personnel in Forest Service camps conduct leisure-time classes.

7. Better coordination of job and vocational training conducted by technical agency personnel with the general camp educational program: Through effective planning by Camp Educational Committees (composed of Camp Commanders, project Superintendents, and Educational Advisers), and more active interest in the committee by Superintendents, better coordination is being secured, and unified programs are being established.

8. Technical agencies are initiating planned instructor training for camp supervisor personnel: Rather than sporadic training courses for camp personnel given by outsiders, persons within the organization who are acquainted with CCC problems and who know the fundamentals of teaching are conducting camp instructor training courses.

9. Legislative recognition has been given to training as a major objective of the Corps: The CCC Act of 1937 states that the Corps is established for employing and training young men, through work performed in conservation, and authority is given for an extensive training program.

10. General recognition of the important position training is to occupy in the CCC organization: Administrative officials, Army officers, and supervisory personnel all recognize that the CCC must train the enrollee for his own development as well as to secure high grade work on the projects and in the camp.

Here are ten trends or straws, all seeming to point in the same direction--to greater activity in a more effective CCC training based on the work program, coordinated, and designed to meet the needs of the enrollees in fitting them for future employment, for living, and for increased job efficiency. To accomplish these objectives, it is necessary that all CCC personnel accept the responsibility for actively meeting enrollees educational and training problems, and all agencies using CCC labor cooperate fully. Only then can the CCC fulfill the training objective for which it exists.

THE CHARGES WE WATCH

By James R. Wilkins, Project Superintendent, F-1, Virginia.

Inasmuch as it would be impossible for me to cover the broad subject of enrollee training in one and one half pages, I will attempt to cover the points that we consider essential if the untrained "Rookie" is to return to private life a year or two later able to "Paddle His Own Canoe".

Since April, 1933, I have seen enrollees come and go from practically every section of the country, white and colored, young and old, city and country bred, - good, bad,and indifferent.

For the first two years most of the enrollees were from 20 to 30 years old, with a scattering of older men. Some were skilled and in many cases very willing workers, but the majority were demoralized, having very little respect for themselves or anyone else. Nevertheless with encouragement and good discipline, the majority could be organized easily into an efficient organization without extensive training.

Today the situation has changed. The majority of present day "Rookies" might be called products of the depression. From 16 to 22 years old, most of them have quit school before completing the grammar grades, except a few who attended vocational school from 1 to 3 years. Many admit that they have loafed from 1 to 7 years and don't really know how to do anything.

Recently, two new enrollees told me they had spent 2 and 3 years respectively studying woodworking in a vocational school in one of our largest cities. Upon their request, I naturally assigned them to that type of work. However, they were hopelessly lost when faced with the actual job. Neither one of them could even sharpen or maintain ordinary carpenter's hand tools. Nor could they cut the simplest joints with a standard carpenter's square. It sounds impossible, but I can cite dozens of similar cases where practical work hadn't been included in their curriculum. Yet after a few simple instructions and two weeks of actual work they could do any of these things. Did we teach them? Definitely no. We only placed them under favorable circumstances and of necessity they taught themselves. There was no paid employee to do this work as there had been in vocational school.

Realizing that classroom work in vocational subjects is almost worthless unless the students are given an opportunity actually to work at the trade, we have endeavored at Camp Roosevelt to place men where classroom work could be coordinated with job training, especially stressing job training. Incidentially, Camp Roosevelt is a camp of firsts, the first camp,in the first state (Virginia) and in the forest named after her first son and the first President (George Washington National Forest). Rather unusual, isn't it?

On the assumption that the first impression is most lasting, we start our preliminary training courses the first day new enrollees arrive in camp, and every man is required to attend. The Project Superintendent interviews each new enrollee and classifies him according to his judgment and the boy's past record. Of course their desires and natural talents are given consideration. Next they are required to attend two classes of 90 minutes each on conservation of our forest resources and the part played by this particular camp. After this they are required to attend one class of 90 minutes on the use of hand tools. In addition 3 classes of 1 hour each are spent in safety training. One hour of these is devoted to the study of actual and theoretical forest fires and the other two to the safety aspects of CCC transportation and general safety regulations. All of this preliminary training is given during the 5-day conditioning period.

When the enrollees are turned over to the Technical Service we devote one-half day to field training in fire fighting, pointing out the hazards of the work on the ground and giving each an opportunity to use every tool, under the supervision of a Foreman. From here on actual work and job training become the daily routine of each "Rookie".

Every Foreman maintains a chart of his crew and its training activities, rating each man according to his accomplishments. Though this arouses no particular interest among the enrollees, it requires the Foreman to consider and know each member of his crew as an individual and gives that personal contact that is favorable to mutual understanding and betterment of the enrollee.

In our opinion nothing replaces good work, proper supervision, personal contact, and good discipline - (Not hell-raising, just firmness) - and if our job training program is to be successful, we must stress these essentials and not hamper our program with excessive paper work.

We feel that if we can take new enrollees who have never worked and do not know how to use ordinary hand tools (75 percent of the type we received fall in this category) and instill in them a desire to work, train them to do one job well, and impart considerable general knowledge about several others, thereby preparing them for employment in private industry, we have accomplished the most desirable objective possible under present conditions.

LET SLEEPING BEARS LIE

On January 19 an unusual incident occurred on T.S.I. operations on the Nicolet National Forest, Wisconsin. Choking down his long pruning saw handle so that he could hold a small basswood with one hand while using the other for sawing, Enrollee Mueller from Blackwell (F-34) CCC Camp, cut off a low limb, letting the end of the 8-foot handle trail behind him on the ground and poke what appeared to be a snow-covered knoll. Upon completing the job, Mueller heard a noise directly behind him and turned to stare into the face of a full-grown black bear. Mueller stood his ground (so he states), and the bear walked off through the entire crew. The knoll turned out to be the bear's den, two blowndown basswoods covered with brush and hidden by the winter's snow. (R-9 Daily Contact 1/26/39)

SERVICE BULLETIN

CONTENTS CONFIDENTIAL

APR 22 1939
U. S. Department of Agr

WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES. IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT. *** THE TIME HAS COME FOR A CHANGE. AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY *** TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES, WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER.

Theodore Roosevelt

Vol. XXIII No. 8 Washington, D. C. April 17, 1939

LET'S HAVE ANOTHER LOOK AT THE HOLE CARD

By E. L. Perry, Prairie States Forestry Project

Every once in awhile someone with a flair for figuring and a nose for history produces statistics to prove that the Forest Service has strayed far from the Spartan simplicity of its youth - those halcyon days when it consisted of a corps of rugged, on-the-ground administrators, slightly reinforced by a smattering of white-collared gentry whose principal function it was to keep the rugged ones supplied with writing paper and fire rakes, and avoid getting underfoot. Today, we are told, that happy order is sadly and zoomingly in reverse. The Service now presents the picture of a smattering of Rangers, well-nigh lost against the background of a vast machinery of bright lads who ride swivel chairs in air-conditioned offices far from the woods, but who have a finger in every pie.

The trouble is, these reports always stop just when the reading ought to be getting good, leaving this correspondent, at least, with a sense of frustration and barely able to refrain from inquiring, "So what?" I would like to help the boys out with their worrying over this situation if I can get properly steamed up about it, but like the hapless citizen looking into the muzzle of a footpad's pistol, I'd certainly feel silly giving up my wallet if the darn gun isn't loaded.

It seems to me that before we waste a lot of nervous energy worrying about this trend, we ought to make some sort of analysis of the value of the functions being served by all these new people in the various central offices. The critics apparently feel that no further justification for their alarm is required than the fact that it presumably transgresses the hallowed principle of "decentralization," but I wonder about that.

Just what does decentralization mean, anyway? Thirty years ago when we coined both the word and the practice, it meant getting authority sufficiently close to the point where action was to take place so that it could be exercised with a reasonable minimum of delay. To me it still means the same thing, but a lot of things have happened since then to influence the kind of machinery required to best put the principle into practice. Then, as now, decentralization was conditioned by the speed with which a man could get himself or his message from point to point. If a Forest Officer could instantly whisk himself around from place to place on a magic carpet, there would be little point in maintaining ranger stations, supervisors' headquarters, or regional offices; we could all about as well live in Washington (though God forbid!) and commute back and forth to the job. We have not annihilated space to quite that extent yet, but we are certainly a long way removed from the time when we built the Ranger's station halfway up the mountain side and eleven miles from town because the Ranger would thus be two hours nearer his job. In point of time, the average regional office is much closer to the ranger district today than was the Supervisor's office 30 years ago, and the Supervisor who once needed a long summer to get around to all his districts is now but a stone's throw from the farthest reaches of his Forest.

What price decentralization, then? Assuming that all the shooting is about distribution and not about excessive personnel, what would you do about the people in the central offices? For example, take the Supervisor's office which once had one assistant but now has three, though the Forest still has only its original seven districts - would the Forest be better managed if it were redistricted and two of the assistants put out in the field? It all depends upon what the assistants have been doing, of course, but if there was much reason for taking them on in the first place, the Forest would undoubtedly suffer rather than gain by the change.

For the most part, the organizations in our regional and supervisor's offices have built up as they have because of the growing need for specialization. No one will deny that forest management is today complex beyond the wildest imaginings of our early day administrators; it runs the gamut from silviculture and civil engineering to social service and limnological research. We are able to provide the machinery for keeping up this vast array of activities at a reasonable cost only because conditions now permit a specialist to spread his services over a large amount of territory. We could serve the earlier conception of decentralization by building up a staff of specialists on each ranger district, but I trust that no one will express a preference for such an organization within the hearing of the budget authorities.

LONGER PERIODS OF EMPLOYMENT FOR SHORT-TERM MEN

By Roy Headley, Washington

Nearly 200 excellent letters have been received in response to my request through the Service Bulletin of January 23 for figures on income and expenditures. I am tabulating the information and making extracts from the statements in these and earlier letters. We will thus be equipped with a good supply of material to use in presenting the plight of National Forest seasonal workers to the Bureau of the Budget, Congress, and the public.

The Chief is asking Regional Foresters and Forest Supervisors to do all they reasonably can with present funds to lengthen the periods of employment of all seasonal workers. So far as practicable, and consistent with fair treatment of seasonal workers other than guards, the available work on roads, improvements, and other special projects will be used to provide at least 8 months' employment annually for short-term men who are now employed for shorter periods. It is not to be expected, however, that this plan will give 8 months' work to all who desire it. Additional funds for needed Forest work must be obtained if the Forest Service is to provide spring and fall work for the men who must be employed during the summer.

The Forest Service will get special reports on this needed spring and fall work. Consideration will then be given to asking the Bureau of the Budget again to approve appropriation for forest work in an annual amount which will so supplement other funds that short-term men desiring it can be given 8 months' work yearly.

In the meantime the Chief has said in response to inquiries that it should be made clear that all short-term men are free to organize or to ask for the support and interest of their representatives in Congress.

It is the definite policy of the Chief that no disfavor or discrimination shall be shown toward any short-term man on account of his activity in appealing for public support or in promoting the organization of guards and other short-term workers. The sole condition is that such activity must not be permitted to interfere with the short-term man's official duties.

COMMON-SENSE APPRAISALS FOR SMALL TIMBER SALES

By F. H. Eyre, Lake States Forest Experiment Station

Are we realistic about small timber sales procedure? When it comes to their appraisal, I wonder if we are. According to the law we cannot sell timber for less than its appraised value, but so far as I can determine, the law does not specify either the "overturn," "investment," or any other specific method for making that appraisal.

How the average Forest Officer engaged in making small sales in the eastern Regions (and some of the western ones, too) can be expected to estimate with any great degree of precision all of the various items of cost that go into felling, bucking, skidding, hauling, milling, etc., is difficult to understand. After using all the operating costs that he has so carefully compiled and after he has determined the selling price and has checked his arithmetic, what does the appraiser do?

If the stumpage value arrived at does not seem reasonable, he goes back over his figures and reconsiders each item of cost to see if he shouldn't "adjust" some of them. The "adjustments" having been duly made, the appraised stumpage price is set. Going through the appraisal procedure may be of some value in refreshing the Forest Officer's memory as to what goes into a logging operation and it may even lull some individuals into the belief that the exact value of the timber has been determined. However, there are others who entertain some skepticism concerning the latter result. Personally, I doubt the worth of standard appraisals except for sales running into several thousand dollars stumpage, like the large sales in the western National Forests. In such cases the amounts may justify employment of a high-grade logging engineer--someone really qualified to do the work. But for small sales, the standard procedure recommended by the "Instructions for Appraising National Forest Stumpage" seems to be so much "mumbo-jumbo."

How much more realistic it would be to use a simple, common-sense method without going through such elaborate computations. As a preliminary to appraisal, an "average" or "guide" price could be set for each Forest or group of Forests. This could be varied from time to time as prices change, and need not be based on anything more complex than current contact with the timber market.

The tract to be offered would then be inspected by the appraisal officer. If the area were a little more difficult to log than the average and some road work had to be done by the operator, the "guide" price would be reduced somewhat. On the other hand, if the timber were of better than average quality and accessibly located, then the price would be raised. The decision on how much to raise or lower the "average" price would all be based on common-sense judgment. After all, the appraisal is not the final answer, because the timber still must be put up for sale and the actual selling price is set by sealed bids.

This is essentially the system in use by the Division of Forestry of the Minnesota Conservation Department. Sales in this State are mostly small (under $1500), aggregate some 50 million feet a year, and normally net more cash than those in Regions 4, 7, 9, or 10. Through many years the system has worked well.

Why could not a similar appraisal system be used for small sales on the National Forests? It would not be difficult to set "guide" prices. In fact the prices issued periodically by the Extension Service of the University of Wisconsin for the use of farmers in judging the approximate value of stumpage represent just that sort of information. Similar stumpage prices could easily be obtained for other States. A common-sense system for appraisals such as Minnesota uses has much to commend it for the National Forests and might serve as one means to simplify and encourage small timber sales, which everyone seems to agree ought to be done.

CONFERENCES

By Crawford R. Buell, Washington

What with training conferences, recreation conferences, wildlife conferences, fire conferences, and so on "ad infinitum", the Forest Service is certainly conference conscious. Dr. Halbert L. Dunn, Chief, Division of Vital Statistics, Bureau of the Census, discussed "The Conference and Seminar as Tools of Administration" before the Society of Personnel Administration in Washington recently. It is believed that field officers will be interested in Dr. Dunn's classification of conferences and will find in the following notes much that may be applied to Forest Service work. Into what groups would fall the conferences and meetings which each of you has held?

A conference is merely an extension to a group of the process by which two people reach an understanding.

There are three types of conferences:

1. Merely for announcements or to impart information--a bulletin board might do as well.

2. Pep conferences--have value at times but can easily be overdone. Pep conferences often defeat the purpose; the desire can be obtained by other than pep conferences, however.

3. True conferences of the types:
   (1) Undirected homogeneous conference--members are all about at the same level and of the same experience. Must be in a small group; best held at regular times so group can make notes to discuss at conference.

   The chief must "get off the swivel-chair"; must have freedom of thought and discussion. To produce freedom of discussion it is usually best to exclude even the chief's secretary. All conferees must feel free to make any criticism of each other desired. In this type conference there is no program. If the group lacks knowledge on any subject under discussion it is well to assign it to certain persons to study and then have a directed conference.

(2) Planned and directed conferences - especially for settling questions concerning outside groups, etc. May need to have had prior individual conferences.

(3) Intermediate type or work seminars. In many organizations an individual reaches a certain stage in his working out of a problem where he lays it before the boss to find out if his approach and procedure, etc., is O.K.

Dr. Dunn said that in his own organization they have modified the procedure outlined in No. 3 and when a worker reaches such a stage a work seminar is held with his associates and their superior. In this manner the individual receives the constructive criticism of his associates who are working on problems somewhat similar. In addition to benefiting the individual who has the problem, a work seminar serves admirably to keep each member of the staff well informed as to current thought and action of the unit.

In response to a question from the floor Dr. Dunn said that he had not listed in the three types of conference a group meeting where the boss made an informative talk or announcement. He prefers to call these "meetings" and mentioned that many "staff conferences" were in reality only "staff meetings".

In conferences and in face-to-face contacts of any kind relationships are based largely upon attitudes. The following Rules for Human Adjustment were given by Dr. Dunn:

1. Willingness to face the truth in our own thinking - To re-examine old ideas which we hold in the light of new facts that have come to our attention, so as to arrive at a consistency in our beliefs. One might term such an introspective attitude toward one's own thoughts "the scientific method of evaluating personal beliefs." In brief, it means a willingness to have an open mind on any subject, no matter how antagonistic past experiences and ideas may have been toward the matter in hand.

2. Willingness to hear and examine the viewpoint of others with an open mind. This is something few of us do well. It is difficult to listen without interruption when another person is telling you his ideas, and yet if you are not willing to do this, you are not likely to understand his viewpoint. You must not only listen, but listen with interest. Interest in the viewpoint of another must be real or that other will not express his thoughts to you. A closed mind is fatal to achieving understanding of another's beliefs.

3. Willingness to grant freedom of expression to those around you, and to develop the mechanisms to bring their opinions into the open. This is a necessity in order to reduce frustrations. The manner of speaking is as essential as are the words which ask for views.

4. Willingness to adjust one's own views so as to arrive at a compromise with another person by searching for points of mutual agreement. It is weakness and not strength to take a stand and stick to it regardless.

5. Leisure for contacts with other individuals. Chief should have enough leisure for group conferences and for conferences with individuals.

6. Willingness to give credit and recognition to the other chap when it is due him. Probably no one thing is so easy of accomplishment and yet is practiced so little.

7. Willingness to give service to others without expectation of gain. "It is the most powerful kind of tie you can build up."

8. Willingness to give responsibility with authority. It is the most fundamental principle of management and is violated constantly throughout Government organizations.

9. When you meet a situation where you must either fight or run you must decide which to do and then do it wholeheartedly.

It is just as bad to grant authority without responsibility (witness Central Europe today) as is the more common practice of delegating responsibility without the accompanying authority.

CIVIL SERVICE FOR GUARDS

By L. F. Jefferson, R. 1

A recent news letter announced that a staff meeting devoted some time to consideration and discussion of the guard employment matter. It is unfortunate that leadership dedicated to the proposition of security for that group of people has been so long delayed. It is my conviction the problem of guard welfare, of which lengthened period of employment is but a phase, is handicapped because of illogical thinking.

The Forest Service personnel generally has opposed the Civil Service Commission in its endeavor to place guards and many other seasonal employees on the Civil Service rolls. It is my thought that as a group regular roll employees of the Service are selfish and short-sighted. Selfish because they demand the security Civil Service appointment and retirement afford, but deny others the benefit. It is claimed that through the merit system quality of personnel is improved. The courage to apply this professed conviction when the question of "guards" is involved is lacking. My thought is that a better class of men would come to us if we were entirely controlled in our employment ventures by Civil Service rules. Certainly there needs to be something done to improve the employment status with regard to tenure of employment, annual wage of the group in question, and to provide for security when they grow old. There are men in this territory who have grown old, decrepit, and nearly blind on the "guard" job, and who have been dropped or are ready to be displaced by younger men. It is a distasteful task to inform an old man, whose loyalty, interest, and energy have been devoted to Forest Service work for years, that further work is not available for him.

Let us set up the needed machinery to induct these people into service from Civil Service registers and take all the gaff that such procedure demands. It will be a cumbersome procedure to begin with, but the Commission, as well as the Forest Service, can correct any difficulty that may arise if we meet the issue. It will never be done by dodging, and up to this point we have dodged.

One of the greatest faults and most serious obstacles to achievement of Forest Service objectives is the fact that it is a relatively small institution compared to other Bureaus of the Government. The placing of several thousand additional workers under Civil Service would cast the Service in proper light in this regard.

Presentation of plans, tied up with a great number of classified personnel, I feel confident will improve our prestige and permit a more impressive showing of financial needs.

I understand an effort is again being made to put them on "Schedule A", exempt from Civil Service. It's a wrong move, just as wrong as we can ever contemplate being and still exist.

I have written this as a personal contribution on the subject upon the general invitation to the field to present ideas on this question.

(Civil Service for Guards and other seasonal personnel was reaffirmed by the Civil Service Commission in conference with Forest Service representatives on March 20. It will be placed only partially in effect this season. -Ed.)

LONG DISTANCE IMPRESSIONS

By Edward Ritter, R. 7

Chet Olson's article in the Service Bulletin of February 20 has prompted a desire for expression of thought and portrayal of everyday, matter-of-fact observation in field and office. The magnitude of business transacted by telephone is rarely reflected in file memoranda; nor is the friendliness and warmth of tone, or lack thereof, a matter of record as in the case of correspondence.

Most certainly we seldom see the person on the other end of the line during a conversation. This obstacle or disadvantage, if it may be so classed, perhaps in time may be partially eliminated when television has been further developed and perfected. But often an individual or individuals in the same or adjoining rooms are within eyeshot or hearing of a conversationalist. No doubt each of us has been one of the observers at some time or another. Who has not noticed a superior, associate, or subordinate use certain varied gestures in a telephone conversation as persuasive evidence of his convictions? Who has not listened to a vociferous individual who raises the voice so that all might hear, even those on the next floor or in the adjoining building, without opening a window or door? Or, on the other hand, who has not received a telephone call from an individual in the latter category which necessitated holding the receiver arm's length from the ear to facilitate intelligibe reception?

My suggestion to improve our approach in addressing others does not necessitate a professional course in voice culture or pantomime. The point in question is need for and possibilities of training in telephone contacts by inviting constructive criticism from our associates. Call it in-service, on-the-job, telephone-contact training, or what not. The fact remains we are passing up daily numerous opportunities that might be employed in eliminating unfortunate situations. Forest Officers as a rule are considered well qualified to judge human nature. They should likewise be able to function as connoisseurs of tactful approach to the public.

Why not note our reaction from an observer's standpoint to the tone and expression used by our associates? The conversationalist might follow Mr. Olson's suggestion and note his reactions. Compare notes. Did the Forest Service employee make a favorable impression on his associates? This is easily and quickly determined. If not, suggestions might be readily at hand for improving his approach. But the impression made on the outsider for better or worse may never be known except through gratifying results or lack of cooperation that may be evidenced indirectly after the conversation has taken place.

A SUGGESTION FOR FIRE FIGHTERS

A new drink that makes men strong has been announced at the Long Island College of Medicine, according to a recent Associated Press news dispatch. The drink is about one-third of a cupful of ordinary dry gelatin dissolved in orange and lemon juice.

Results, six men doubled their muscular endurance in about a month and a half training at bicycle riding. On women there was no effect. The announcement was made by Dr. G. R. Ray, J. R. Johnson, and M. M. Taylor.

The kind of gelatin used was not the mixtures on the market, containing many other ingredients, such as sugar, coloring matter, and flavoring, ("strawberry, raspberry, cherry, orange, lemon, and lime" - to quote a popular radio program) already prepared for making fancy desserts, as these contain too small an amount of gelatin. That used by Dr. Ray is made from bones of food animals, with nothing added. The amount of gelatin taken by the male subjects was 60 grams, or about 2 ounces, a day. To make this easy to take the Long Island men dissolved it in orange and lemon juice at the rate of 30 grams to 8 ounces of juice. They then drank it quickly before it could "jell."

Gelatin is rich in glycine, an amino acid also called gelatin sugar, which has been used medically for several years to treat muscular weakness. It has been tried on athletes. But glycine causes discomfort when taken in large amounts. The Long Island scientists reasoned that gelatin would be an easy way to take the endurance chemical and reported they succeeded.

THE EDITOR DISCOVERS

Very much exaggerated figures are sometimes quoted as to the total acreage destroyed by forest fires. As the result of hearing a statement of this kind at a recent meeting of foresters, the Division of Fire Control compiled from the annual fire reports a statement showing the percentage of "complete kill" by forest fires on the National Forests during the years 1932 to 1937, inclusive. Such a compilation reveals the following data:

Year	Total Area Burned Over NF and Private Inside (Acres)	Percentage of "Complete Kill"
1932	400,675	9.5 (38,064 acres)
1933	144,430	13.3 (19,237 acres)
1934	605,397	61.1 (369,938 acres)
1935	184,882	21.4 (39,506 acres)
1936	437,466	22.4 (97,897 acres)
1937	102,586	12.0 (12,300 acres)
Six-Year Total	1,875,436	30.8 (576,942 acres)

Region 1 had the highest six-year average percent - 79.3 (a total "complete kill" of 338,194 acres). Region 2 came next - 60.1 percent (27,711 acres). Other highs were: Region 4 - 45.1 percent (80,025 acres); Region 6 - 30.3 percent (28,813 acres); and Region 9 - 21.9 percent (46,947 acres). The average for Regions 7 and 8 was less than 1 percent "complete kill" resulting from their fires.

- - - - - - -

Plantations in the Tropics must be weeded to obtain satisfactory survival in growth and the cost of transporting crews and paying wages for this necessary work is exorbitant. The Supervisor of the Caribbean Forest has therefore found of great benefit the "parcelero" system by which he is issuing permits to cultivate and occupy National Forest lands, providing for the planting of trees and cultivating between rows in forest plantations by the permittee. The cultivation provides the needed weeding.

The rural population of the Island, Supervisor Hadley reports, is very dense and a great majority of these people are living in extreme poverty. Few of them have the opportunity to earn cash and they live by the raising of certain crops and by bartering these for the necessities of life. It is impossible for them to pay a cash rent. At the request of the Forest Service, Secretary Wallace has waived insofar as they apply to National Forest Land in Puerto Rico the restrictions against issuing free special use permits except to persons actually resident upon the lands at the time of acquisition who are, upon investigation, found to be unable to secure the money needed to pay the usual fees; and to lands having a habitable dwelling.

The National Resources Committee has just published a handbook on "Low Dams." This is a manual designed for small water storage projects. Although a sub-committee was responsible for the handbook, a considerable part of the work was done by Chief Engineer T. W. Norcross and M. B. Arthur of the Washington Office, particularly the latter. The book has 430 pages and is replete with information on all kinds of material needed in understanding the mechanics of dam building. Only a limited supply of the publication has been made available to the Forest Service, but extra copies may be procured from the Superintendent of Public Documents, Government Printing Office, at $1.25 each.

New fees for National Parks were recently announced by Secretary Ickes. Among the National Parks affected are the Rocky Mountain in Colorado, Shenandoah in Virginia, and Grand Teton in Wyoming. In these areas a permit fee of one dollar per year will be collected for each automobile. The motorcycle fee in the Rocky Mountain and Shenandoah Parks is one dollar and in the Grand Teton it is fifty cents. The license will entitle the owner or driver of the motor vehicle to enter or re-enter the particular Park as many times as he desires during a calendar year. A special provision is made in regard to Shenandoah Park, where entrance for a single day will be permitted upon payment of a 25-cent fee. For the first time an additional fee of one dollar will be charge for a house trailer in those Parks where motor vehicle licenses are required.

In six of the National Monuments where, in the past, no charge has been made, a motor vehicle license costing 50 cents will be required. These include Colorado Monument, Craters of the Moon Monument in Idaho, Devils Tower Monument in Wyoming, Petrified Forest Monument in Arizona, and Lava Beds and Pinnacle Monuments in California. Admission fees varying from 10 to 25 cents per person, with exceptions for children, will be collected at certain other National Monuments.

A registration fee of one dollar per person will be charged mountain climbers in the Mount Rainier National Park, Washington.

A. P. Jacot of the Northeastern Forest Experiment Station died suddenly on March 24. Dr. Jacot was an international authority on microfauna and, while most foresters in this country are unacquainted with his work or the relation of it to forest problems, his work was recognized by foresters abroad, as well as by those working in the field of forest soils. His contributions to literature were many and varied, including systematic observations of many species of minute animal life, decomposition of litter, and the identification of forest sites, even after the forest had been changed or removed, by means of shells and other hard parts of small Crustacea. Dr. Jacot's passing leaves a vacancy in his particular scientific field which will be exceedingly hard to fill.

ARTICLES BY MEMBERS OF FOREST SERVICE APPEARING IN OUTSIDE PUBLICATIONS

Compiled by Washington Office Library

AUTEN, J. T. A forest soil research program for the Central States. Jour. Forestry 37(2): 153-156. Feb. 1939.

CAMPBELL, R. S., and CAMPBELL, I. F. Vegetation on gypsum soils of the Jornada plain, New Mexico. illus. "Literature cited": p. 577. Ecology 19(4): 572-577. Oct. 1938.

CULLEY, MATT. Densimeter, an instrument for measuring the density of ground cover. illus. Ecology 19(4): 588-590. Oct. 1938.

GARVER, R. D. The national timber stand. Jour. Forestry 37(2): 92-98. Feb. 1939.

JOHNSON, H. M. Trends in lumber production in Oregon and Washington. illus., charts. Timberman 40(3): 14-15, 22. Jan. 1939.

KOEN, H. R. Forestry problems of the Ozarks. Jour. Forestry 37(2): 168-173. Feb. 1939.

PESSIN, L. P. Ground cover and pine seedlings. Effect of cover on growth of longleaf. Naval Stores Rev. 48(44): 6. Jan. 28, 1939.

SHEA, J. P. A psychologist looks at the Forest Service. Jour. Forestry 37(2): 148-150. Feb. 1939.

SILCOX, F. A. A federal plan for forest regulation within the democractic pattern. Jour. Forestry 37(2): 116-119. Feb. 1939.

STEER, H. B. Before and after reforestation. illus. Timberman 40(3): 12-13. Jan. 1939.

THE EXPERIENCE OF DENMARK WITH LOGGING BY FOREST MANAGERS

"It is not alone due to the development of the science of forestry during the last 50 - 60 years, to the better care taken of the trees, and the selection of better types (through control of seed source), that there has been an increasing percentage of timber for industrial purposes. The fact that all the trees are felled and all the wood and timber are handled exclusively by workers employed in the forests in Denmark is responsible for this improvement.

"About 70 years ago most of the trees in the Danish forests were sold on the root. The purchaser had to have the trees felled by men engaged by him and the wood sawed or split, stored and transported. This mode of procedure caused great damage to the forests and it was entirely abandoned by the beginning of the present century. It has resulted in much benefit to the forests and the saving of many young trees and also probably in a reduction in the cost of lumbering." (Extract from report on Danish Forestry and Conservation, by American Vice Consul E. Gjessing, Feb. 1939.)

LIBRARY
MAY 6 1939

SERVICE BULLETIN

CONTENTS CONFIDENTIAL

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT *** THE TIME HAS COME FOR A CHANGE AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY **** TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES. WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER
>
> Theodore Roosevelt

Vol. XXIII No. 9 Washington, D. C. May 1, 1939

AMERICAN DEMOCRACY

(Excerpt from Secretary Wallace's address on "Racial Theories and the Genetic Basis for Democracy" at the public meeting sponsored by the Lincoln's Birthday Committee for Democracy and Intellectual Freedom , held at New York City, February 12, 1939)

The survival and the strength of American democracy are proof that it has succeeded by its deeds thus far. But we all know it contains the seeds of failure. I for one will not be confident of the continued survival of American democracy if millions of unskilled workers and their families are condemned to be reliefers all their lives, with no place in our industrial system. I will not be confident of the survival of democracy if economic crises every few years continue to put fear into the hearts of millions of skilled and professional workers. I will not be confident of the survival of democracy if half our people must continue to be below the line of decent nutrition, while only one-tenth succeed in reaching really good nutritional standards. I will not be confident of the survival of democracy if most of our children, which means most of our future citizens, continue to be reared in surroundings where poverty is highest and education is lowest.

These are the conditions that made possible what we are now witnessing in certain large areas of the world. They are the seeds of danger to democracy. Given a healthy, vigorous, educated people, dignified by work, sharing the resources of a rich country, and sure that their political and economic system is amply meeting their needs -- given this, I think we can laugh at any threat to American democracy. But democracy must continue to deliver the goods.

And so, let us dedicate ourselves anew to our democratic body of faith -- to the promotion of a stable but ascending general welfare by increasing the productivity of the people and by adopting price, wage and other policies which distribute income more evenly among the people but which do not diminish the incentive to increased production of needed goods. Let us dedicate ourselves anew to the belief that there are extraordinary possibilities in both man and nature which have not yet been realized, and which can be made manifest only if the individualistic yet cooperative genius of democratic institutions is preserved. Let us dedicate ourselves anew to making it possible for those who are gifted in art, science, and religion to approach the unknown with true reverence, and not under the compulsion of producing immediate results for the glorification of one man, one group, one race, or one nation.

Are we as scientists doing all we can to make democracy succeed? Are we using our science vigorously and impartially, to bring greatly increased health, wealth, security, and education to all the people of the United States? The fate of democracy and of scientific freedom will depend less on what we may say than on how unreservedly we dedicate ourselves to these deeds.

PETERSBURG HOLDS ITS FIRST SKI TOURNAMENT

By J. M. Wyckoff, Tongass

Bordering the town of Petersburg are extensive areas of open meadow or "muskeg" interspersed with small groups and patches of timber principally pine. Flanking these open meadows on the southeast the timbered ridges rise abruptly to open mountain plateaus.

The usual winter season brings from 2 to 5 feet of snow to this vicinity and temperatures to 10° below zero. This climatic condition and the rolling open country combine for a natural set-up for cross country skiing. The population of Petersburg is preponderately Scandinavian and of course they take to this form of sport like a duck does to water.

For the past two years the Forest Service, through the facilities offered by the Civilian Conservation Corps, has cooperated with the local ski club in developing a cross country course of 4 miles and a ski jump. The timbered slope adjoining the open meadow was cleared for a width of 120 feet on a down slope of 30 degrees for a distance of 150 feet. Provision was made for a junior jump, a toboggan slide, and a senior jump. The open meadow extends in a gentle slope from the foot of the hill forming an outrun course toward town for a distance of 3,000 feet. Two trails lead from town to the hill, at the foot of which the ski club has built a spacious log cabin. The cabin is fitted with two stoves, cupboards, a kitchenette, and a pitcher pump drawing water from a nearby well. Lunch is served on ski jump days. The camp is equipped with an emergency snow ambulance to carry injured skiers to town.

The entire set-up is an ideal winter sports area of unusual accessibility. One can don his skis at the front door and travel to the ski jump without the aid of other means of transportation.

And so, on February 11 and 12, 1939, the first annual tournament was held on the Petersburg Ski Course. Due to the strike which left Alaska without steamer transportation for three weeks, it was impossible for skiers from other towns to join in the tournament. Only one outsider took part. But this did not dull local enthusiasm. No less than 350 persons attended the second day of the meet when the jumping contests were held. There were thirteen contestants. Due to a heavy fall of snow on the 10th and 11th the track was slow. Nevertheless, the event was spectacular. Trophies were offered for four classes: adults, covering anyone over 21; intermediate, from 16 to 21; juvenile, under 16; and the best jumper over 50 years of age. And did the little fellows put on a show, five of them, appearing like midgets as they flew down the approach, over the takeoff and down the slope. Each contestant had three tries. The midget of midgets, about 4'6", spilled every time but expects to do better next year. The long jump in this class was 41 feet. In the intermediate and adult classes the longest jump was 65 feet. This course is good for 100 feet. The trophy offered for the best jumper over 50 years of age was sought by four entrymen, and the longest jump in this class was 61 feet by an entry who had not "gone over the hump" since 1913. A trophy was also offered for the ladies' downhill run, with five entries.

The cross country run held on the 11th was shortened to three miles because of recent heavy snow. The best time on this course was at the rate of six miles per hour.

Following the jumping contest a luncheon was held at the Sons-of-Norway Hall at which the prizes were presented and talks given by various members of the ski club. About 150 attended this luncheon.

It has been my pleasure to attend numerous sporting events and celebrations. I have yet to attend an event wherein the enthusiasm of the entire crowd was more genuine and satisfying.

Petersburg has always been noted for putting on a good show. This ski tournament was tops. If you want to attend a super winter sports show make your plans now to be at the Petersburg ski tournament in 1940.

BARN DOORS

By John H. Hatton, Washington

There are 25 or 30 "barn doors" on the National Forests, some big, some little, and nearly all open or unlocked. Written on them in large letters we read "Big Game Forage Problems." They introduce a comparatively new sickness in National Forest administration. We talk of range management illnesses, but the symptoms here, and the patients, are much easier to treat. Wildlife management sickness becomes a festering sore, insidious, virtually cancerous, harder to reach and on which consulting physicians, except very recently in some instances, have seldom agreed either as to diagnosis or to treatment. So, range mortality along with wildlife mortality in all their depressing symptomatic phases may go on apace. No immunity develops with inoculation. Major operations become necessary.

Through the generous courtesy of the Division of Wildlife Management of the Ogden Office and Orange Olsen, we were introduced to all but three of the present problem areas in Region 4. As in the Science Building at the San Francisco Fair where I forthwith decided to have no more hay fever, the forms, charts, and illustrations were presented to us without reservations. Each patient or problem area presents much the same history. But, let Ranger Jim Jensen of Kanosh, Utah, tell you as, uncertainly atop an eight-foot pole of Cowania mexicana exclosure constructed by the CCC, I imperfectly and inadequately record him:

"I have been a Ranger on this district of the Fishlake Forest for 30 years with the exception of two. When I first came here there was considerable wheatgrass (Agropyron smithii) on this range, and Cowania was very rank and abundant, not injured. About 1920 the range began to go backward, which was attributed to too heavy use by cattle. In 1931 we fenced the boundary to control spring use. Cattle were not allowed spring use at all in 1938. But, going back: In 1912 another fellow and I went deer hunting. On a several days' pack trip we saw two bunches, one with four deer, the other with 12. We got a nice buck and sent the head to Salt Lake City as an object of curiosity and interest. It is still there.

"Deer were scarce, so the Forest Service, all of us, set out to educate people in the protection of vanishing species. 'Let's have some game,' we said, and the people joined in. 'Let's cooperate with the Ranger,' they said. This cooperation continued until 1922 when we estimated 1,000 deer on some 300,000 acres of my District. We killed a fat buck that hog-dressed 275 pounds. Fat was in a thick layer over his rump. A Sportsmen's Association was formed. About 1925 the game situation started to blow up. It was blamed on the cattle. In 1926 and 1927 to 1929 we continued to talk about cattle doing it. No one, not even the

Ranger, was so darn sure they were not. I made a trip to another range to see comparable conditions. I was accused by other Forest Officers of hollering for nothing. A prominent official looked over this range and wrote me a memorandum stating that conditions were due to poor management. So, we recommended this exclosure in order to study what deer may do apart from cattle. It was installed in 1934 and has been carried for four seasons and you see the rather remarkable result. More than 500 people have come out here to see it with their own eyes and have concluded that deer have been responsible for most of the depleted condition in which you see this brush on one of the finest deer browse ranges, potentially, in the State of Utah. Sportsmen have been hardest to convince, especially at long range.

"A representative of the Fillmore Rod and Gun Club insisted there was no deer problem in Millard County; but when he saw this, he was convinced and agreed to a tryout of a reduction of the herd by 1,000 head. Don't antagonize sportsmen by using harsh language. Try to educate them. You can't force people to do something they don't want to. Don't argue with an intractable man but show him so he will convince himself.

"We have more deer now than a year ago. Even the summer range is being injured. There is no aspen reproduction under three years old on 334,000 acres of my summer range. We have reduced the livestock. We estimated 9,000 deer in 1933; in 1938 the estimate was 15,650. There were 3,200 hunters on my District last year and they took off 2,505 bucks by check count and a kill of 600 does was also authorized. You know, there is a general feeling that it is a crime to kill a doe. There was a kind of holiness or sacredness attributed to doe deer from about 1913 to 1935."

Returning to the cars parked by the highway three or four miles down the juniper slopes my saddle horse was slow (consideration for his rider) and we became separated from the other 19 stockmen, sportsmen, a bishop, and a number of Forest Officers, a vocational CCC instructor, a member of the Biological Survey and a member of the Advisory Board of Utah District 3 of the Taylor Grazing Act.

I saw sagebrush that had been killed in large patches, high deer lines on nearly every juniper, fine potential stands of cliffrose (Cowania) and bitterbrush (Purshia) killed back, no grass, and trails and deer excreta almost like that on continuously used sheep bedgrounds. Every little bit my horse would stop abruptly, almost unseating me, and peer fearfully through the underbrush where a dead fawn or older deer would be lying, evidencing the pitiful agony and struggle that must accompany slow starvation. Then, over to the right or left groups of living deer would be startled by our approach and move to cover.

As we said our adieus at the cars and the stockmen took our horses, I asked Ranger Jensen if he had ever written his story.

"No," he said, "I'm ashamed of it."

This brief sketch is not written to give him embarrassment or add to what he expressed, but to give him what cheer I can for having foreseen his problem ahead of most of his contemporaries, and for the earnest efforts he has made to correct an accelerating condition of forage destruction; also for the progress he has made in bringing his "public" to an accurate realization of our and their problem. I believe he has found the key that, with a little more filing and fitting, will lock his barn door.

We have reiterated by word and pen that starvation when forage is inadequate is not a humane nor an American way of approaching the problem of game control. Such an approach is cruel, wasteful, unsportsmanlike, and, more than any other, progressively reduces the habitat originally available to a condition that is most difficult, if not impossible, to correct.

Seeing ground and "grass root" conditions makes me want to capitalize that statement.

WHAT! NO PICTURES?

By Robert S. Monahan, Washington

In one of the 202 file drawers which hold the 34,500 mounted prints comprising the Washington Office photograph collection is assembled a group of photographs designated "Foresters at Work." When one considers that this selection represents the cream of the 350,000 negatives forwarded to Washington through the years by several hundred forester-photographers, it would seem that this drawer should be a veritable treasure house from which to fill the innumerable requests from magazine editors, book publishers, free lance writers, and others for illustrations to show the great American public what foresters are doing.

An examination of the contents provides disappointing evidence that this is only wishful thinking. A check of the cross references to possible photographs filed under other allocations is no more productive. True, there are several invaluable photographs of foresters as they worked in earlier days, such as Gifford Pinchot and Henry S. Graves pulling a toboggan load of camp equipment and surveying instruments through the Adirondack wilderness in March 1898; George B. Sudworth riding a mule through the Sequoia National Forest in 1901; ski-rigged Forest Rangers on National Forests of Arizona and Colorado in 1909; and lady lookouts splitting firewood in the shadow of their wartime stations. But such photographs have only specialized use now and do not help to meet the ever-increasing demand for editorially acceptable up-to-date photographs of Forest Officers actually on the job.

The contributions of countless Forest Officers have brought widespread recognition of the Forest Service collection as a photograph file unexcelled in many subjects. The evolution of about every commercially important tree species is depicted from seed collection to the transportation and use of the finished product. When an airliner crashes on a western mountain slope, the collection will usually reveal a view of that same peak or at least the range in which it is included. Every type of administrative structure is illustrated from the mahogany-shaded headquarters of the Caribbean National Forest to the floating offices of the Alaskan Forests silhouetted against a glacier front. But when the author of an article on some characteristic Forest Service activity needs a photograph showing a uniformed Forest Officer actually doing the job described in his story, he will probably be disappointed in the illustrations furnished him.

In the June 28, 1937, issue of "Life" there appeared a spread of forest fire photographs furnished by the Forest Service. An illustration of a fire lookout, the familiar "eyes of the Service" type, was needed to keynote the sequence. The collection produced several views of lookouts with eyes glued to fire finder, hand reaching for telephone, profile in perfect focus, but no evidence of the area the man was protecting. The final selection was a 1909 photograph showing a lookout in the Cabinet National Forest wearing clothes and using instruments of the period and watching for smoke from his primitive, fully exposed vantage point. Obviously, such a photograph was no credit to our modern fire detection equipment, but it did dramatize the purpose of the lookout -- to protect the rugged, timbered slopes in the background. Such composition is admittedly a difficult photographic assignment, especially when shooting the interior of an elevated cab, but a few photographs recently submitted by ingenious Forest Officers demonstrate that that kind of photograph can be taken.

What are some of the reasons for the relative scarcity of this type of illustration? First, any photographs taken before the present specifications for field clothes went into effect are obsolete, just as our CCC photographs of enrollees in dress uniform will be outmoded to some extent after next fall when the new outfits are worn.

Second, Forest Officers seem to be more proud of photographs showing completed counting corrals, timber sale areas, and picnic spots, stark and impersonal though they may be in themselves, than pictorial evidence of their role in National Forest administration. The reading public has seen plenty of pole fences, tree stumps, and rustic tables, but it is interested in illustrations of Forest Rangers tallying sheep, measuring stump heights, and issuing fire permits to groups of picnickers. Other factors might be mentioned, such as improper equipment, inadequate training, and the tendency to make picture taking incidental to other activities, but most of these obstacles can be overcome in some way.

The public wants to know and has a right to know more about what we are doing "on the job." A selection of photographs taken at unusual angles and showing a properly dressed Forest Officer actually doing a job which may be daily routine to him but an incident packed with human interest to anyone else will go a long way toward satisfying the curiosity and increasing the knowledge of the man on the street toward Forest Service activities.

LETTERS SHOULD BE MORE FRIENDLY

(Memorandum from Paul H. Appleby, Assistant to the Secretary, to Chiefs of Bureaus and Offices, April 12, 1939)

A number of people in the Department who initial letters prepared for the signature of the Secretary, his assistants, and for various Bureau Chiefs have called attention to the stilted and formalized character of many such letters. These letters go to all parts of the country. They are shown to neighbors, perhaps read in meetings. This applies also to letters to Members of Congress who forward them to constituents. Stilted letters lend confirmation to the often repeated charge that the Government is run by an uninterested bureaucracy, aloof and unconcerned with local problems.

With this consideration in mind we have been critically examining letters passing through this office. Obviously, we can not have rigid rules on the form of letters, for such a formal prescription itself would tend to destroy the friendly tone that can be achieved through variations and originality. Those who dictate letters should do whatever is appropriate to be courteous, to indicate our genuine interest in the concern of the correspondent and to answer the points raised in the incoming letter as fully as needed. We should like our letters to be written in language simple enough for any citizen to understand, giving information clearly and specifically answering questions. Simplicity and clarity should be the goal of persons dictating letters, both those which go directly to the field and those which Members of Congress may be expected to pass on to their constituents. A letter of the latter sort should provide the Member of Congress with an exhibit which he can send his constituent to give a clear, simple, and direct answer to the points raised by the constituent; it should show a friendly spirit of cooperation between the two branches of Government.

In general our letters are adequate so far as the answers to questions are concerned. There is, however, room for improvement in the tone of our letters. Many are too impersonal. For example, there is the practice of sending to a Member of Congress a carbon copy of a letter that has been sent to some other Member of Congress. The Congressman needs a letter he can send to his constituent. A copy of one to another Congressman does not fill the bill. In some cases a long statement in great demand can be duplicated and sent provided our covering letter is friendly. Opening and closing paragraphs of all letters should be friendly and cordial.

There is too much delay in making replies to many letters. Some of course must go to two or three Bureaus for information, with some attendant delay. But we are constantly embarrassed by letters from Members of Congress and others who complain of delays.

We hope to see improvements in letters along the lines of clarity, cordiality, and sincerity.

FIRE EQUIPMENT DEVELOPMENT

By Roy Headley, Washington

Although the Bosworth trencher is getting the lion's share of attention at present, the established policy of promoting actively any promising leads for development of fire control equipment continues in effect. The equipment development projects considered by the Fire Control Equipment Committee in February were not large in number or in the financial assistance needed from the all-Service equipment development fund. Eleven specific projects were approved, however, and allotments have been made accordingly. Region 1 received $500 to use in trying to adapt the two wheel "scooter" now in use in some western cities, for transportation of fire guards who have good trails or roads available but no horse or automobile. Region 3 received $450 for an attempt to adapt a garden tractor for use in fire line construction. Region 5 received $600 for three projects: to close up and write up a project on development of a wind machine for use in fire fighting; to further develop a flame thrower on wheels; and to purchase a new R-5 type of multiple valve for use on tank trucks in other Regions. Region 7 received $200 for the development of a special fire locator for use by cooperators. Region 8 received $50 for experimenting with an asbestos suit and $400 for development of a promising form of disk plow for use in fire line construction. Two hundred dollars was approved for use of the Washington Office on minor expenditures which may be necessary in connection with 14 Kempaks which have been distributed to Regions for use with fire foam. Region 6 received $450 for test and development of the Mesaba plow from R-9.

The most important project has to do with the development of a light engine urgently needed for both the Bosworth trencher and the power saw. The most promising project at present seems to be the chance to adapt for this purpose an engine in use on one of the portable pumpers. Region 6 received $800 for this purpose and the project will be followed up aggressively next year.

The Equipment Committee endorsed the principle than when equipment development funds are not needed for actual development projects such funds should be used to purchase and distribute new equipment which seems to need such support to get it into wider use. This has already been done this year by financing the purchase of more than 30 Bosworth trenchers from the all-Service equipment development fund.

The Committee also endorsed the use of any available funds for prevention and training films. Thirty-five hundred dollars had already been allotted to Region 6 for the production of a training film dealing with common errors in fire fighting.

RESEARCH ON TUNG OIL

(From an address by Dr. Henry G. Knight, Bureau of Chemistry and Soils, delivered at the annual meeting of the American Tung Oil Association, Gulfport, Mississippi, March 27, 1939)

While the production of tung oil in the United States is fairly new it is, nevertheless, fast becoming a subject of considerable economic importance in the sections where the tung trees can be grown. But new as this enterprise is we have already advanced far enough to enable us to see that it is time to build the tung oil program on a solid foundation backed by scientific research. There is no place for purely promotional developments in an undertaking as promising as the tung oil enterprise appears to be. We need to look at this thing from the longtime point of view, and plan the program accordingly. ***

The United States is dependent on China for its supply of tung oil. Importations in 1937 amounted to about 175 million pounds. Disappearance, or consumption, in the same year amounted to about 155 million pounds, about 85 percent of which went into paint and varnish and the rest into the manufacture of linoleum, printing ink, and miscellaneous products. ***

Since the foreign supply of tung oil is subject to sharp fluctuations in price and to uncertainty as to its availability, there is considerable interest in the development of a source in this country, and even in the development of other processed oils which could be used as a substitute for tung oil. As a result of these activities, there is a growing interest in the production of tung oil in the United States. On account of the susceptibility of the tung tree to frost and other adverse climatic conditions, the area where the tung tree can be successfully grown is now more or less confined to what is commonly called the Gulf Coast Region. Roughly this region includes the coastal areas of about a half dozen States extending from South Carolina to Texas. The first plantings in this country were made around 1900. Commercial plantings began about 1923. Since that time commercial plantings have gradually increased until it is estimated that there are around 175 thousand acres of tung trees in this country at the present time. The yield of nuts for 1938 was estimated at 20 million pounds, and the oil at 4 million pounds.

There have been so many tung tree plantings in the last few years and so much interest in this new development that Congress appropriated money last year to provide for scientific investigations in this rapidly expanding Southern crop. This appropriation will be divided between the Bureau of Plant Industry and the Bureau of Chemistry and Soils. *** There will be two main divisions of the research. One will be what is called agronomic, that is, pertaining to the trees and embracing such things as planting, varieties, cultivation, fertilizers, harvesting the nuts, breeding to develop more productive varieties, methods of propagation, and so on. That part of the investigation, which by the way is the largest part of the research program, will be handled by scientists of the Bureau of Plant Industry. The other part of the investigations will deal with the tung fruit and nuts after they have been harvested, and will study the content and characteristics of the oil produced under the various agronomic conditions and the production and utilization of tung oil and its byproducts. That part of the research which is purely technological will be carried on by the Bureau of Chemistry and Soils. ***

Three field laboratories are now being set up to carry on investigations pertaining to the production of tung oil in this country. One of these will be located at Bogalusa, Louisiana, one at Gainesville, Florida, and one at Cairo, Georgia. The laboratories at Gainesville, Florida, and Bogalusa, Louisiana, will be cooperative between the Bureau of Plant Industry and the Bureau of Chemistry and Soils. To begin with there will be two chemists and a number of agronomists located at each of the two new field laboratories. These scientists will devote their full time to the various phases of tung oil research. Some of the agronomists are already on the job. The chemical laboratories are being equipped and will open around the first of May.

G. P. EXPRESSES APPRECIATION

Mr. Pinchot called me this morning (April 17) to ask whom he should thank for the flowers sent him on Saturday. He said he appreciated them right down to the ground - that nothing had given him more pleasure during his illness. When I assured him that the flowers really came to him through Service-wide participation (the "two-bit fund"), he said he was more and more pleased every minute and wanted everyone to know the pleasure it had given him. I assured him that we would get word to everyone through the Service Bulletin. I know from the tone of his voice how genuinely pleased he was with the flowers which went to him with "the love and best wishes of the Forest Service."

Mr. Pinchot told me that he "is on the way up" and that it would not be long now before he is out again. - E. F. Crocker

THE EDITOR DISCOVERS

The report of the Queensland (Australia) Director of Forests for 1937-38 states that his organization spent 109,969 pounds (over $500,000) "on logging roads to make timber stands accessible." Also "Departmental haulage for direct log sales to millers supplied 62 percent of the total mill requirements for pine logs from Crown forests," which forests are the chief source of supply. Apparently, the cutting and hauling of the timber are largely done by the department under a system of contracts, with deliveries of the products made to the purchasers at their mills or other processing plants. So here is an English-speaking country where logging and milling are separate industries, and the logging on Government lands is done by the Governmental administrative agency, but more by contract than by force account. The miller does not control action in the forest, however, except as a purchaser of delivered rough products such as logs.

- - - - - - - -

The following "Trail Rider" expeditions will be conducted by the American Forestry Association during 1939:

Expedition No. 1 - Flathead-Sun River Wilderness, Montana, July 3-15
Expedition No. 2 - Sawtooth Wilderness, Idaho, July 18-31
Expedition No. 3 - Gila Wilderness, New Mexico, August 1-13
Expedition No. 4 - Maroon-Snowmass Wilderness, Colorado, August 3-16
Expedition No. 5 - Kings River Wilderness, California, August 20 to September 1

- - - - - -

Paul Whiteman recently wrote Mr. Silcox as follows:

"I was surprised and grieved to learn recently from my baton maker that in using 2,000 batons during my twenty years as an orchestra leader, I had thereby utilized the wood and caused the destruction of five full-grown Maine birch trees. In other words, a young forest has passed through my hands and I have done nothing to reimburse the soil whence it sprang.

"Therefore I am forwarding you five trees with the request that your reforestation division replant them in Maine to take the place of those destroyed in my name. This, in some respects, is a pure conscience payment so that posterity, in search of shade, shall not revile my memory for having despoiled the American countryside of its choicest timber.

"My baton requirements may still necessitate the chopping down of two or three more trees before my final retirement, but you may rest assured that I shall always provide for their replacement."

To which Mr. Silcox replied:

"The good earth offers us its soils and its waters. They yield animal and plant life. Human welfare depends on wise use of these natural resources. We cannot conserve merely by preserving, yet we destroy unless replenishment goes hand in hand with use.

"I am, therefore, mighty glad that you are sending us five small birch trees. The Forest Service will, I assure you, plant them in Maine so that they may serve as replacements for the five mature birches from which the 2,000 batons you have used during your 20 years as an orchestra leader have been made.

"As you may have gathered, foresters do not look on trees as an end in themselves. We in the Forest Service think of them rather as tools in the service of mankind. And I am sure the public will agree with me in the thought that the inspirational value of those birches, used by Paul Whiteman as batons, has been beyond compare."

- - - - - - - -

Four-H club enrollment reached a new high in 1938, with 1,286,029 boys and girls listed as members in 74,594 local 4-H clubs, according to a recent Department of Agriculture press release. More than a half million of these boys and girls became club members for the first time last year. This brings to approximately 7,500,000 the total number of young people who have received 4-H training since the work became nation-wide in 1914. So widespread have 4-H clubs become in the past 25 years that more than 40 percent of the rural boys and girls reaching the average age for joining 4-H clubs last year were enrolled in the organization.

"STRANG AND FEARFULL TO BEHOLD"

There are records of 4 outstanding storms in New England since 1620. The first was of August 15, 1635, second of September 23, 1815, third of September 8, 1869, and the fourth of September 21, 1938. In all of these there was extensive forest damage, though that of 1869 was slightest. Of the 1635 storm Bradford's History of Plymouth Plantation says: "It blew downe many hundred thousands of trees, turning up the stronger by the roots, and breaking the hiegher pine trees off in the middle, and ye yonge oaks and walnut trees of good bigness were wound like a withe, very strang and fearfull to behold --- The signes and marks of it will remaine this 100 years in these parts where it was sorest" - (Grant - Military Engineer - March-April, 1939) -

LIBRARY

FOREST SERVICE U S DEPARTMENT OF AGRICULTURE

SERVICE BULLETIN

CONTENTS CONFIDENTIAL

WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT xxx THE TIME HAS COME FOR A CHANGE AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY xxxx TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES. WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER Theodore Roosevelt

Vol. XXIII No. 10 Washington, D. C. May 15, 1939

ARBOR DAY - SYMBOL OF A PEOPLE'S FAITH

(Excerpts from an address by Secretary Wallace, broadcast over the Farm and Home Hour, April 21, 1939)

The Arbor Day idea is one of several forces which have impelled a national movement for the conservation of our great natural resources. *** City people and farm people both have an interest in forest conservation. On Arbor Day they both plant trees. In so doing they express their belief in the need to restore and protect resources of soil, and water, and forests, and they symbolize their faith in the future. ***

J. Sterling Morton's faith was strong. When he came to Nebraska in 1854, all the country west of the Missouri was shown in the geographies as the Great American Desert. Morton, refusing to accept that judgment, introduced and planted fruit and forest trees. The force of his example, and of his idea, resulted in the planting of more than a million trees in Nebraska on the first Arbor Day in 1872.

Since then the idea of Arbor Day has spread. Every State in the Union now observes it in some form or other, and it has been adopted by one or more countries on every continent. I am sure this would have pleased Morton, who was sincerely devoted to the public welfare. So, I think, would the huge tree-planting project carried on in recent years in the Plains States, including Nebraska. Despite early skepticism similar to that which Morton faced, this project now includes more than 126,000,000 trees so planted that they form 11,000 miles of living shelterbelts, 100 feet wide on 20,000 farms.

Conceived by President Roosevelt in 1933, this project lies in a region in which there are more than 200,000 farm families. Within the last five years these families, and their farm land which with its improvements is worth more than 3 billions of dollars, have been subject to the worst droughts in the history of the Prairie-Plains States. Their crops have also been exposed to severe grasshopper damage, and to high winds.

Despite these conditions, this Prairie States Forestry Project has been carried on without interruption by farmers, in cooperation with this Department's Forest Service. In the five years since the first planting, many trees have grown 4 feet or more each year, and foresters tell me some of them have grown to a height of 35 feet. During years of unfavorable crop production these living barriers to scorching winds have reduced moisture losses at critical times, and protected cultivated crops. Throughout each year they have made the Plains regions where they are growing a more attractive and a better place in which to live.

I have mentioned the Prairie States Forestry Project in this radio visit with members of the Farm and Home Hour audience for certain very definite reasons. One is that the first step in the project is tree planting, and tomorrow is the 107th anniversary of the birth of the man who conceived Arbor Day. Another is that the growth of the Arbor Day idea and of this forestry project seem to me to give evidence of the national determination that we will replenish and build up our natural resources rather than deplete and destroy them.

Our Nation still holds some of the richest natural resources in all the world, but we need to conserve them. With magnificent energy early Americans possessed this continent and made it produce for the Nation and for the world. But in all honesty we must admit that as a Nation we have lived off the fat of our land: that ever since Jamestown was settled we have abused a heritage of soil and of living things: that we are now paying for that abuse in terms of denuded forests, of ghost towns, of wind and water erosion, of floods that damage rich farms and richer cities, and often choke rivers and reservoirs and harbors with silt.

These things add up to a price we can no longer afford to pay.

Private ownership is a cherished institution in our democracy. It must endure. But forests, for example, have values and render services that are far greater to 130 millions of people than they are to the few thousands who now own most of the best of them. Theodore Roosevelt, under whom the Forest Service was established as a Bureau in the Department of Agriculture, understood this. He knew that public values, as well as private ones, must be protected, and that protecting both is a responsibility of government.

The impetus Theodore Roosevelt gave to conservation followed the start made by J. Sterling Morton, father of Arbor Day. Another and a tremendous impetus has been given by Franklin D. Roosevelt through coordinated conservation programs. Within the Department of Agriculture, the coordinated program is conducted by such agencies as the Agricultural Adjustment Administration, the Biological Survey, the Bureaus of Plant Industry and of Chemistry and Engineering, the Farm Security Administration, the Forest Service, and the Soil Conservation Service.

Along with the Federal-State Extension Services, the Federal Bureaus and agencies are cooperating day by day with States and counties, and with farmers and other land owners, to work out better conservation practices and rebuild and develop that priceless but common heritage of the American people, the soil and the living resources that spring from it. With a vigilant national consciousness of the need for this work - a consciousness of which Arbor Day seems to me a symbol - I have faith that America has now begun to live not only off the land, but on it; not only in a physical sense, but also in a deeply spiritual one.

A WORTH-WHILE PLEA

By R. F. Hammatt, Washington

From a CCC foreman comes what, in the words of our Chief, is "a distinctly worth-while letter". Because, although undated and unsigned, it is thoughtful, restrained, and constructive, acknowledgment of the letter is made through the Service Bulletin.

One of the pleas the writer makes is for more personal contacts "with the boss". In this, as in other things, he is expressing what many of us feel is a real need in the Forest Service. There may be - and there are - reasons for fewer such personal contacts than we have had in days gone by, but there are just as many reasons, and as strong ones, why every effort should be made to increase these contacts, and to put them on an informal, democratic footing.

And to encourage esprit de corps, let's remember, as this foreman says, that the CCC is more than a source of labor for the Forest Service: that its personnel is proud of its own organization: that it has a good record: that the public likes it: that, deserving recognition in its own right, it should receive it.

(To which P. K. comments: "Why emphasize the distinctive organization idea? This foreman is as much a Forest Service employee as the Ranger under whom he works.")

GLACIER BAY NATIONAL MONUMENT, ALASKA

By B. Frank Heintzleman, R. 10

An Executive Order of April 18, 1939, extended the area of Glacier Bay National Monument from its original 1,160,000 acres to a total of 2,000,000 acres. The extension included about 470,000 acres taken from the Tongass National Forest of 16,500,000 acres in southeastern Alaska.

This enlargement carried the consent of the Forest Service; in fact the Service first suggested it. This was in recognition of the unquestioned "National Park caliber" of the locality. The original monument withdrawal of 1926, embraced only the main features of the picture presented here. The addition brings in the supporting features and supplies a frame.

As the name implies, tidewater glaciers constitute the principal reason for a National Monument or Park at this point. Glacier Bay with numerous narrow tributary fiords indents the rugged Coast Range here to a depth of 60 miles. All the high country around the Bay, with the exception of the loftiest peaks, is covered with a continuous ice sheet hundreds of feet in thickness and thousands of acres in extent. Large glaciers lead down the principal valleys and serve to drain ice from the sheet above and drop it into the fiords where, as bergs, it moves about with the tides. The leaf-shaped bay makes the heart of the monument readily accessible to travel by steamship and smaller craft. The mountains which surround the bay on three sides are very high and rugged and include the great range which culminates in Mt. Fairweather of 15,400 feet, one of the highest peaks in North America.

This area is of exceptional interest to outdoor scientists. One hundred and fifty years ago the entire bay region was filled with glaciers. The retreating ice fronts now afford an opportunity to study the action of glaciers in carving land forms, and the bare polished fiord walls expose the geological strata in large vertical sections. The forward creep of vegetation on the barren land as the ice recedes presents a perfect succession of plant forms from 150-year old spruce and hemlock forests at the mouth of the bay through pure spruce, cottonwood, alder, brush, herbs, fireweed, wild strawberries, etc. to lichen on the rocks near the ice edge. In a somewhat similar way there is a succession of animal life from the Alaska brown bear of the forest areas to small rodents only, on the recently exposed lands. The numerous bald rocky islands serve as rookeries for sea birds of many species. The few clear water streams teem with salmon during the spawning season of this migratory fish. One of the "oldest" land areas supports the largest and best example to be found in Alaska of a mature virgin Sitka spruce forest, with trees up to 8 feet in diameter. Interglacial fossil forests of spruce, unpetrified, which became established between alternate recessions and advancements of the ice are now being uncovered.

With the exception of a group of homesteads at one point just inside the south boundary, the Monument is practically free of patented land and settlers.

It is hoped that the National Park Service will now proceed to do something here. The original Monument area has never had as much as a single ranger or guard. Scientific investigations of many sorts are needed. John Muir first explored and studied the bay in 1879 from an Indian dugout canoe and wrote an excellent general treatise on its features, but only a handful of scientific men have visited it since. The area also needs some facilities for the accommodation of visitors as well as publicity of the character that will attract scientists and lovers of the primitive. It is too "cold" and too far from large centers of population to become a picnic ground. Simple but comfortable camps, foot trails, stone shelter huts in the high country, and launches for bay travel would just about complete the list of needed important improvements. The Park Service is sending two men north this summer to determine what should be done.

This article is presented to the Service Bulletin in answer to the many inquiries that have come to me as to the features that make this area desirable as a Monument area.

HORRENDOUS

By H. T. Gisborne, Northern Rocky Mountain Forest and Range Experiment Station

The annual report of the Appalachian Forest Experiment Station for 1938 is well worded to illustrate one horrendous feature of our fire control economics. This report justifies fire control and fire research by stating that:

"Forest fires are still a major obstacle to successful forestry practice almost everywhere in the Station's territory, where each year 40,000 fires burn 7½ million acres and cause nearly 9 million dollars' worth of damage to tree crops alone. In addition, fires cause tremendous losses to watersheds, to fish and wild game, destroy opportunities for forest recreation, and damage other valuable forest assets - - -."

It is obvious from this typical report that we have in the past counted the fires, surveyed the area burned, carefully cruised the timber destroyed and thereby obtained some figures. And after all this labor of counting 929's, surveying, cruising, and summing it up in dollars, what is the dependability of that dollar-total? Not very much, because we all add: In addition, fires cause tremendous losses to watersheds, to "downstream Federal financial interests", to fish and wild game, to recreation, to community work reservoirs, etc.

Probably this "addition", that we now tack on to our damage figure, amounts to at least half as much as the meticulously surveyed and cruised timber loss, possibly it amounts to even more than the timber loss. The 9 million dollars therefore probably should be 13½ million; possibly it should be 18 or 20 million dollars. "Horrendous" isn't bad enough to describe such a waste of effort in highly refined surveying, cruising, and evaluating when the figure thereby obtained is then qualified with a "probably plus 50 percent" or a "possibly plus 100 percent."

If we are all claiming this "additional" basis for justifying fire control, how much longer are we going to survey to the last tenth of an acre, cruise to the last square inch of basal area wounding, apply high powered volume tables, and correct our stumpage value curves to the last 10 cents, in order to get a figure only half to three-quarters of what we believe to be correct?

PRACTICE WHAT WE PREACH?

By I. H. Sims, Washington

Bob Monahan's article, "Skiing Foresters" in the March 20 Service Bulletin is fine; it strikes at the root of our recreational problem on the National Forests. Monahan missed a vital point, however, when he failed to generalize on his thesis.

Foresters are not leaders in the field of forest recreation for the same reason they are behind in the ski procession, because they do not, as a rule, go in for wild land recreation themselves. They simply cannot speak authoritatively from their own recreational experiences. The percentage of Forest Service personnel who hike, camp, ride, or go on canoeing and pack trips purely for recreation is appallingly small. A larger percentage, particularly in the "upper brackets" where policies are determined, play bridge or golf, like scenic drives, picnics, etc. We have talked for a long time about the wonderful recreational opportunities on the National Forests but have set rather a poor example of making use of them. As a matter of fact, the viewpoint is prevalent that a forester who goes to the woods for recreation is like a postman taking a walk.

The current emphasis on pretty picnic and campgrounds, bathhouses and bathing beaches, seems to reflect two forces, first our own lack of interest in more strenuous and extensive forms of recreation, and second our attempt to "give the people what they want". This attempt has led to concentrating on the development of facilities definitely characteristic of parks. With comparatively limited funds available for recreation the corollary has been that little improvement has been made in facilities for activities characteristic of wild land, recreational trails and connecting links, shelters, spring and sanitary developments at trail camps, etc. etc. Plainly put, our recreational program is out of balance.

The answer usually given to this charge is that the park-like facilities get overwhelming use as soon as installed whereas our trails and portages go practically untrod year after year. In rebuttal it may be said, first that our trail systems are not designed for and are seldom suited to recreational use particularly in combination with car travel; second, that needed facilities are available in only a few places; and third, that we have made no real effort to educate folks on the pleasures and values to be derived from the more extensive activities.

Of these three the last is probably the most serious and most in need of correction. Our forests have recreative benefits and values to offer that are peculiar to themselves and not available elsewhere. What these are and include is well known to us, yet we seem content to let the public find them out without help.

What I am talking about lies between the elemental struggle in the wilderness area and the crowded beach and picnic ground where parking space is at a premium. We should be thinking in terms of two and three family picnic spots a hundred yards off the forest highway, round-trip graded trails from one to ten miles long with starting point at a parking space, coordinated trail systems for longer hikes with shelters, developed and marked canoe trips covering about the same range in length, and similar accommodations for reasonably robust, healthy folks.

But, would such facilities be used enough to justify the expenditures involved? Mr. Headley's article, also in the March 20 Service Bulletin, points to a definite trend in that direction - IF the facilities are provided, and we might add, if the Forest Service does some advertising.

But even advertising will not be effective unless it rings true, and that brings us back to re-emphasizing Monahan's point. Some of us should get back to enjoying forest recreation, perhaps at the risk of being thought queer by our confreres, so we can be prepared to provide real leadership to the thousands of able-bodied, intelligent people who can and will use our forests for fun.

WHAT'S IN A NAME?

By Marguerite McGuire, Washington

Once upon a time Ferdinand the Forester said to himself, "I think I'll CLAPP my HATTON my WOODHEAD (that's the only kind of head a PROPPER forester should have, isn't it?), and go into the WOOD!" Off he started toward the WEST, over several STILES into the KIRKLAND, where he stopped for a moment to SPEAKE to the BISHOP and the CHAPLINE about the new BELL for the CHAPPELLE, then across the MARSH to the PARKS. Being a good WALKER, he soon reached the WOLD. It was a beautiful DAY with just a few WHITE clouds. There had been a RAINE and the forest had never been LUSHER or more GREENE. Ferdinand sat down on a KNOLL to smell the FLOWERS and to enjoy the pleasant BREESE. Forest sounds fell pleasingly on his ear -- the whirr of a FLOCK of MARTIN flying by, the stealthy pad-pad of a CURLEY FOX, the humming of BATT'S wings. A SPARHAWK circled laxily overhead. It was all so peaceful that he was just about to take a KNAPP when a distant NOYES aroused him. In a TRICE he was on his feet, listening to the howl of a WOOLLEY WOLF.

As the Forester stood there, surveying his surroundings with genuine joy and appreciation, he thought "There's many an ACKER of timber here, with LAUTZ of trees, but so few that I know, which is strange. I see only a ROWE of BURCH, a GRUPE of CHERRY, some WILLOUGHBY the ALSBROOK and one lone ROUDABUSH. Some of these trees are READY to market, so on the MORROW we'll MARKWELL the ones to SHIPP and sell at AUKSHUN, but the others will be left so we will, get the WRIGHT GROSS PRICE PURYEAR for the sustained yield; until they are a SIZER two larger, it would not do to SLAUGHTER them. That's good forestry! And we must CAREY it out in practice."

On the way home Ferdinand stopped at the MILLS to caution the MILLER KNOTT to let any one HOPPE over the WATERS and DROWN ORR to fall into the PITT. Continuing his way, he went WENDELIN along a narrow road, beautifully bordered with trees - 'A LITTLE LAND For two LOVING SWAIN!'

Just then he heard some one call "HALLAUER! HALLAUER!" and turned to see his FAIRBROTHER with a FRIEND, two FELLOWS who asked if they might make CAMP and COOK. The Forester consented, with the admonition, "Remember that BROWN BRUSH BURNS. The AMES of the Forest Service are high. The Forest is 'Yours in trust: We must protect it from fire.'"

Now that I have told my story of Ferdinand the Forester, I'll take a SHANTZ that no one will get BOYLAN mad NORCROSS even, but will take it in the Spirit of LOVE in which it is meant -for what's in a name, after all?

(All reference in this story to persons in the Washington Office [names in caps.] is purely intentional, but absolutely without malice.)

THE EDITOR DISCOVERS

Regional Forester Heintzleman, who is now in Washington, comments as follows on the much publicized project of building an international highway to Alaska:

"The proposed road link would extend from Hazelton in British Columbia to Fairbanks in central Alaska. All possible routes lie well back of the coastal mountain range and consequently the National Forest sections of Alaska would be little affected directly, as only one isolated spot there could be connected with it by a branch road at reasonable cost.

"This highway, if built, would doubtless produce a profound change on the economy of Alaska. Some of the effects, such as increased tourist trade, would obviously be beneficial. Others might prove far from desirable. Some sections of the United States now appear ripe to produce a migration to a new country such as Alaska where free homestead land, great game herds and good fur resources are available. Gold prospecting is also an appealing feature. Dust-bowl families with many children, a Model T Ford and no funds, have been arriving in the Pacific Northwest at the rate of over 500 farm families per month for the past few years and the migration to California has been even heavier. These States are appealing to the Federal Government for help in caring for these immigrants. It would be a tragedy to divert this stream to Alaska, now protected from it by expensive steamer travel. The long winters would inevitably throw an unbearable relief job on the Territory and lead to great suffering. Again an exceptionally high standard of living obtains in central Alaska based on gold mining and high wages and this would be completely upset by a heavy influx of workers accustomed to low wages and poor living standards. Also the extensive game and fur resources would doubtless be rapidly depleted. Relief in some form for these western drought and depression victims can be more adequately and cheaply provided in the States than in Alaska. Some residents of Alaska are now weighing these possible adverse features against the tourist trade but in general local public opinion still favors the road.

"Fairbanks is approximately 1400 miles from Hazelton. Of this 1200 is within Canada and 200 within Alaska. The country traversed is almost entirely a remote unbroken wilderness, and largely of rough but not mountainous terrain. Extensive muskegs and shifting glacial rivers join with inaccessibility in fixing a high construction cost. A fireside estimate for a two-way gravel road would place the cost between 50 and 60 million dollars. It could not be kept open for travel for a longer season than four or five months at reasonable cost and maintenance would be exceptionally high. The total distance from Seattle to Fairbanks would be 2250 miles.

"Canada hasn't the funds to build its section of this road and many U. S. boosters are suggesting that the American Government finance the entire project. I am convinced that Alaska would be better off if the project were dropped and a portion of the money used to make a survey and development plan for the Territory and to construct the local road systems, air fields, etc., necessary to put the initial steps of this plan into effect."

- - - - - - - -

The WO Division of Recreation & Lands wrote to dude ranchers utilizing National Forests, to learn their charges for ranch accommodations and wilderness trips. The following reply was received from one despondent Arizona rancher:

"Usual costs for all ranch accommodations and entertainment is $10 a day. Summers it is $7 a day. We usually have from 10 to 20 dudes around. This winter was the worst so far, counting back from 1917 when we first began wrangling dudes. We have to keep about 45 saddle horses and guide horses on hand all the time. Raise our own colts. Have to keep some mares and usually a stud. Steeldust and Morgan mixtures. Some part thoroughbred but mighty few. Some small gentle young horses for children. Also complete kitchen department, women cooks, fresh vegetables and meats, pastries. Then comes the housework and laundry. The plumbing and septic tanks. The water supply, pumps and electric works. Motor transportation. Supply trucks. Hay. Grain. Milk cows. Orchestra. Picnics. Parties. Bridge. Booze. Gambling. Romance. We supply everything."

ARTICLES BY MEMBERS OF FOREST SERVICE APPEARING IN OUTSIDE PUBLICATIONS

Compiled by Washington Office Library

BOMHARD, M. L. What palms grow in Louisiana, part 5. illus. La. Conservation Rev. Winter, 1938-39. p. 38-40.

COWLIN, R. W. Allowable cut, depletion and current growth in the Douglas fir region. diagr. West Coast Lumberman 66(3): 30-31. Mar. 1939.

EBERLY, H. J. Fire protection makes progress in South. Naval Stores Rev. 48(49): 10. Mar. 4, 1939.

GISBORNE, H. T. Determination of normal fire danger. (In Iowa. State college. The Ames forester. 1938. p. 27-31)

HEADLEY, R. Trends toward mechanization of forest fire control. Forestry Chron. 15(1): 29-33. Mar. 1939.

LIEFELD, T. A. How long will a streak yield gum? diagr. Naval Stores Rev. 48(50): 10, 14. Mar. 11, 1939.

MARCO, F. The anatomy of spruce needles. illus. "Literature cited": p. 367-368. U. S. Jour. Agr. Res. 58(5): 357-368. Mar. 1, 1939.

PESSIN, L. J. Root habits of longleaf pine as associated species. illus., table, diagr. "Literature cited": p. 57.
Ecology 20(1): 47-57. Jan. 1939.

PEW, J. C. and SCHAFER, E. R. Forest products laboratory springwood-summerwood measuring instrument. illus., diagr.
South. Pulp and Paper Jour. 1(2): 16-17, 31. Jan. 1939.

PICKFORD, G. D.. Forest service enters on range research program region six. (In Iowa. State college. Forestry club. The Ames forester. 1938. p. 55-59)

RAPRAEGER, E. F.. Matches from Idaho's white pines. illus. Amer. Forest 45(3): 112-114. March 1939.

SHANTZ, H. L. Land management and wildlife on the national forests. (In Iowa. State college. Forestry club. The Ames Forester. 1938. p. 33-36.)

SILCOX, F. A. A federal plan for forest regulation within the democratic pattern. "Discussion", p. 119-120. South. Lumberman 158(1989): 30,35. Feb. 15, 1939.

SILCOX, F. A. The community forest as a public asset. illus. Kiwanis Mag. 24(3): 142-143,188. Mar. 1939.

STANDING, A. R. Use of key species, key areas and utilization standards in range management. (In Iowa. State college. Forestry club. The Ames forester. 1938. p. 9-19)

TIEMANN, H. D. Lessons in wood technology. 9. Bordered pits in Tracheids. illus., diagrs. South. Lumberman 158(1991): 49-51. Mar. 15, 1939.

WINSLOW, C. P. Markets for New England's wind-felled forests. illus. Amer. Forests 54(3): 115-118, 141. March 1939.

RECORD METEOR DISCOVERED IN MODOC NATIONAL FOREST

One of the largest meteorites ever found in the United States has been discovered in the barren lava country of Modoc National Forest in northeastern California. Weighing between one and three tons, the solid metal body takes a place among the Nation's seven largest known meteors. The wedge-shaped mass is reported to vary from one to three feet in width and is four feet long.

C. A. Schmidt of Oakland made the important find last October while deer hunting on the Modoc Forest with two companions. He confided his discovery to Forest Service officers and since then a number of scientists and representatives of scientific institutes have become interested in the fallen body. The Smithsonian Institute of Washington, D. C., has taken a particular interest in the discovery, since all meteorites found on Government land become the property of the Institute. It is believed that considerable difficulty will be met in hauling the heavy object to civilization. Preliminary analysis shows that the meteorite is composed largely of iron. The extent of surface oxidation is said to be quite limited, indicating that the body had fallen in geologically recent years. - From R-5 Press Release

NEW DEVELOPMENT IN TRUCK-LOGGING PRACTICE

By R. R. Reynolds, Southern Forest Experiment Station

A recent invention by A. G. Jacobson, Forester and Logging Superintendent of the Fordyce Lumber Company of Fordyce, Arkansas, may bring a considerable change in the truck-logging methods now in use throughout the South. The invention consists of a combination truck-hitch and "horse" or standard that permits the loading of an empty, detached trailer in the woods while the truck is making a trip to the mill. It also permits rapid and easy hooking and unhooking from the truck of empty or loaded logging trailers.

By using two or more "horses" and trailers with each truck, the time the truck spends in the woods waiting for the loading to be accomplished is only a fraction of that required under present methods, in which loading is done by team cross-haul after the truck has arrived in the woods. Furthermore, whereas the time required for the truck to obtain a load with present equipment is 20 minutes to an hour or more (depending upon size of logs and upon logging conditions), a load can be obtained with the new invention in 5 to 10 minutes. Thus, with a haul of less than 10 miles, the number of trips and the volume hauled per truck per day may be doubled. Moreover, since the crew can take its time to load the trailer, it can make a better selection of the logs and can build larger loads.

A study made by the Southern Station indicates that although a chain-puller and an extra team and driver are required in order to complete the loading of the trailers before the truck returns, and although the cost of the new equipment is greater than that of present standard equipment, this increased investment is justified by a logging cost that in most cases is $1.00 cheaper per M board feet than with present equipment and methods. - From Southern Forestry Notes No. 26

EXCERPTS FROM "FORESTS AND FOREST INDUSTRY", BY ROBERT B. GOODMAN, IN HARVARD BUSINESS REVIEW, WINTER 1939

Those who are not workers or investors in forests and forest industry, and many who are, entertain the belief that the forest industry is inimical to the forest; and loving the forest, they are cold to its enemies. This public attitude is based on the continuing exploitation of our American forest resources. But it is not quite so simple. A closer study of forest utilization in every region discloses complex relationships and interdependencies of public and private interests.***

Up to the beginning of the present century, agricultural use absorbed the forest lands after the removal of the timber, continually reducing the forest land area. During the past thirty years, however, shifts in agricultural methods and soil exhaustion have returned large areas to forest use; natural reproduction and tree planting are making new forests; second-growth timber in all the eastern forest regions is reaching merchantable size; organized forest protection has reduced the annual loss from fire and insect damage which once exceeded the annual cut; forest protection has also made possible the survival of the young growing stock. For these reasons the forest census of today shows larger timber reserves in the older producing regions than inventories taken thirty years ago, when official bulletins were published proclaiming imminent exhaustion. ***

The objective of providing for an abundant future supply of forest products for forest industries in every forest region is valid because forest industries supply commodities of increasing usefulness, and because forest industries afford decentralized employment to a desirable, regenerative element of our population. This objective is nearing accomplishment in all the forest production regions; but within these general regions are areas of forest exhaustion in which rural communities are facing a long inactive period before a second commercial forest crop matures. Measures that will save these critical forest areas from forest devastation, and their dependent population from insolvency, are the concern of the States where these areas exist and of the Nation as a whole.

There has been much controversy as to relative public and private responsibility in the management of privately owned commercial forests. If rightly understood, this is not a matter of controversy, but of impartial economic analysis. It is logical that the responsibility for proper management should be measured by the general benefits that accrue to the public and the commercial benefits that accrue to the private owner.

Erroneous as the old predictions of approaching timber famine now appear, these predictions would have been realized were it not for the public and private cooperation in using and conserving forest resources. This is the outstanding accomplishment of the American forestry profession, in education, in research, and in the practice of forestry, as well as the outstanding accomplishment of public administration by the Forest Service and the state forestry departments, and of the newer forest industry management. Through this cooperation, forests and forest industry have become less inimical and more mutually dependent.

As our fears of forest exhaustion fade, a new concern arises: Can future consumption of forest products be increased sufficiently to enable forest industry to utilize the prospective forest productivity in all our forest regions?

SERVICE BULLETIN

Contents Confidential

Vol. XXIII No. 11 Washington, D. C. May 29, 1939

JUN 1 0 1939

THE TRAINING VALUE OF MY ASSIGNMENT AS LOOKOUT-FIREMAN

By Paul Gillingham, R. 6

On June 26 I arrived at Crow Flat Ranger Station, Malheur Forest, headquarters for my new job as lookout-fireman, and was immediately taken to Fire Guard training camp, where I was especially impressed with the simple but necessary facts taught me.

With my three days of fire school instruction stored in a convenient wrinkle of my brain, plus one year of college training in Forestry, I was eager to tackle my assignment as lookout-fireman at West Myrtle. I arrived at my point late in the afternoon on July 7 and there began as busy a two months as I have ever spent. I forgot, at times, that I was alone. Painting, wood-sawing, installing handles in equipment, and even landscaping were among the jobs to be done, and these alone, if done well, require versatility.

But this was only the beginning; correlating topography with the fire finder was a task that required patience and ingenuity. I began to realize that I was working longer hours and more diligently than if a boss were at my side. Now, I sincerely believe that when a man is interested in his work, his interest and his conscience combine to form a more relentless taskmaster than any boss could ever be. A man will not often rebel against his own dictation. This knowledge will be of the greatest value to me if I am ever acting in the capacity of employer.

Regardless of opinions to the contrary, living alone for any extended period requires intestinal fortitude, speaking both literally and figuratively. As to the physical and mental factors concerned, some of us are better able to take it than others. This is no doubt the result of various similar experiences. Adjustment to solitude is always more or less difficult, but the situation contributes to a man's independence of thought and reasoning, and general self-sufficiency. In actually experiencing all of the physical and mental reactions of living alone, I feel that I can be more sympathetic and considerate of the problems of men whose jobs require them to live in solitude.

One of the important training values that I have received grew out of the assumption of responsibility. The fact that the ranger and dispatcher are sharing the responsibility makes his job seem at least twice as important to the lookout as it would if he were carrying the responsibility alone.

I have considered as having training value all those experiences which will better equip me for modern living. Mental discipline, punctuality, and accuracy are not to be overlooked in building mind and character. The importance of such values cannot be over-emphasized, and I feel that my summer's assignment made a significant contribution to my personality in these respects. The actual field experience that I had last summer will be immeasurably important in emphasizing and focusing the significance of my future technical training.

As I left the Service, hoping to return next summer, I felt the satisfaction of one who had done his best; I was proud of my new associates and acquaintances. I consider this brief chapter of my life as one of the most valuable and interesting yet lived.

(Paul Gillingham is a young forestry student from Washington State College who served his first assignment in forestry work last year. - R.6)

MATANUSKA SETTLEMENT, ALASKA

By B Frank Heintzleman, R. 10

The Region personnel is frequently consulted by individuals and representatives of groups who are considering agricultural settlement in Alaska. Interest in this matter is now at an all-time high and sound advice and skillful guidance to these prospective Alaska farmers are extremely important all around. Unfortunately, the National Forests, embracing the wet, densely-wooded, thin-soiled coastal areas, are largely ill-adapted to agricultural use and consequently we cannot take on this activity and give it the control and assistance that our laws and regulations permit. However, we are working closely with the other public agencies concerned on the settlement problems of the Territory as a whole.

A sentiment is growing among the local technicians and administrators dealing with agricultural matters, that the public domain areas of the Matanuska Valley and adjoining Susitna River flats present the best possibilities at this time for the extension of agriculture in Alaska and that would-be settlers should be directed to this locality. In line with this they urge that complete economic and resource surveys, including soil tests, be made of that locality. The commercial white birch stands and extensive grazing areas there would figure prominently in the settlement plan. The existing buying and selling cooperatives, schools, hospital, roads, etc. of the present Matanuska Colony of 165 families (originally 200 families) would be available to the non-colony homesteaders on the surrounding arable lands, and this extended use would help justify the large sums that have gone into these community facilities. Some of the individuals who deal with agricultural problems here believe that the Department of Agriculture should now take over the administration of this Colony; carry on the economic and resource surveys previously mentioned, and then make recommendations to the Interior Department for new laws that would permit of better control over the entry and development of the surrounding Matanuska-Susitna lands; and, in addition, have the timber and grazing lands, so important to the community set-up, withdrawn as National Forests. The Region fully agrees with all features of this proposal.

The Colony administration was transferred in 1938 from the WPA to the Interior Department, Division of Territories and Island Possessions. While ably staffed for its primary functions, this Division, is not, and perhaps no other agency in the Interior Department is, organized to deal with the technical and economic farm problems that the Matanuska Colony on the encounters. Incidentally, while it appears that the Federal Government has spent too lavishly Colony and made some unwise selections in the enrollment of the original group of 200 families, the foundation for the venture was sound. The soil is productive, the climate not too harsh, and an expanding market for foodstuffs that can be grown locally (now valued at $1,000,000 yearly) is available in the Railroad Belt accessible to Matanuska. Those members of the Colony who have a farming background and possess a lot of energy are coming along in good style. I should say that 60 percent are of this class.

Our Department and Washington Office will doubtless hear from others about this proposed change in administration as the idea becomes more widespread.

ADMINISTRATIVE LAW -- A FOREST SERVICE PROBLEM

By Crawford R. Buell, Washington

In our complex pattern of government today is found an ever increasing need for specialization or functionalization of work which, in turn, calls for correlation at many levels within the government hierarchy, and for integration at the top level. Integration today requires a broad grasp of management principles, an appreciation of the subject matter of the unit or agency, and a knowledge of how the administrative decisions made and the administrative actions taken fit into the broader pattern of government as a whole In this latter is included a knowledge of administrative law.

Administrative law is that branch of public law relating to the organization of the administration, the legal relation to powers of government, the rights and duties of holding office, and the nature and extent of the powers, regulations and methods by which the objectives of government are carried out administratively. More simply expressed, it is any rule or regulation not specifically covered by statutory law, but, so far as the public is concerned, having the force of law. It is an essential part of each governmental agency but its identity is often hidden by the curtain of universality which prevents "seeing the forest for the trees."

Administrative law brings to mind the Interstate Commerce Commission with its regulation of passenger and freight rates and routings on common carriers; of the Federal Radio Commission and broadcast licenses. In the Department of Agriculture we have examples closer home; the Packers and Stockyards Acts must be administered, the Pure Food Law of Harvey Wiley which resulted in the Food and Drug Administration, the Federal Surplus Commodities Corporation and its purchases of wheat and corn and even logs by the N.E.T.S.A. of our own creation.

The Forest Service itself is no stranger to administrative law. The Chief in his decision as to fees to be charged for grazing of stock on National Forests is making a decision thoroughly bound by administrative law. His decision is the result of exerting the legislative function; carrying it out is the executive function. The Forest Supervisor who approves or rejects applications for grazing permits is performing a function executive in nature as a rule, but when denial is made because of violation of law or regulation that is exercise of the judicial function.

Similarly the District Ranger exerts administrative discretion in accepting or rejecting applications for the various types of special use permits, in determining whether to prosecute for violation of trespass regulations concerning fire, game, occupancy, and the like. Among other actions are the designation of campgrounds, of home sites, cutting boundaries for timber sale areas, time of slash disposal, use of ski trails. In meeting his responsibilities in these fields the Ranger's action is seldom wholly executive in nature, but instead is also quasi-judicial or quasi-legislative or both.

The administrative decision by the employee on the ground--be it the newest forest guard, a women clerk in a forest office or the Chief in Washington--may occasionally be arbitrary (in the sense that it is fully within the discretionary power of the employee) yet such arbitrary power must never be exercised in a capricious manner, but in many cases should involve many of the safeguards to human and property rights used by the judiciary.

At present a knowledge of administrative law assists one in understanding the problems confronting the administration of the Wages and Hours Act and the National Labor Relations Act. Upon the administration of these Acts depends to a not inconsiderable extent the success of progressive forest management practices on both private and federal lands. This is particularly true with Wages and Hours on the administration of which depends how we must organize our own fire control employment plan.

A recognition of these facts of administrative law--and its base of constitutional law--will tend towards a smoother functioning of an organization and towards helping the employee to avoid making unsound, improper, or capricious decisions. Governmental units where the scope and the nature of administrative law are appreciated will have complaints concerning maladministration reduced to a minimum. The "law" is not the ultimate goal, the law is merely useful as its principles are applied to human relationships. An appreciation and knowledge of administrative law increases one's ability to deal with some of the laws of human nature.

The Committee on In-Service Training of the Department of Agriculture in its report, "Employee Training Policy", recently approved by Secretary Wallace, gives emphasis to the necessity for training administrators and supervisors in administrative law and the background of substantive law pertaining to the field of work in which they are engaged.

MORE ABOUT THE INTERNATIONAL LOG RULE

By W. R. Mattoon, Washington

The International log rule has been recognized by the Secretary of Agriculture as one of the three methods permitted for scaling Government timber. The others are the Scribner Decimal C and the cubic volume rules. This approval was given on December 22, 1938.

The substitution of the International rule is left to the discretion of the Regional Foresters. One factor of some importance which led to its recent adoption for the scaling of hurricane timber in New England was the distribution by the Federal Land Bank of Springfield, Massachusetts, of thousands of scale sticks bearing the values of the International log scale.

The International log rule, allowing for $\frac{1}{8}$ inch saw-kerf was originated by Dr. Judson F. Clark of Canada. At the request of Prof. H. H. Chapman of the Yale School of Forestry, Dr. Clark worked out a revised rule on the basis of $\frac{1}{4}$ inch saw-kerf which was first published in Chapman's "Forest Mensuration".

CURE FOR DISAPPROVAL DISEASE

By C. A. Joy, Deerlodge

The "disapproval disease" is one which I believe is common to practically every Forest. Supervisors writing disapproval letters after disapproval letters year in and year out become master penmen. The success of all this penmanship, however, especially from the standpoint of conveying friendliness and personal good will to each individual stockman is questionable.

Here on the Deerlodge it was considered that the time employed in all this letter writing might be used to better advantage, and working on this idea, it has come to pass that the disapproval letter has come and gone for (we hope) the last time.

With 19 local stock associations and one "master" association on the Forest, we started to work to place every C&H permittee in one of the locals and also invited the few sheepmen to attend. Association meetings are scheduled during November at which time applications are taken for the following year. At these meetings it is definitely decided upon just who is to run stock, how long stock shall be allowed to run, during what seasons they shall be permitted, and how many animals there shall be for each management unit.

The application figure, therefore, becomes an approval figure and for disapproval letters there becomes no need.

Advantages of this method are obvious. First and most important of all, it allows for personal contacts, with each and every individual concerned. Secondly, all decisions and agreements made can be immediately recorded on the association books with all parties present at the time they are written in. Last, everyone has experiences of the past season fresh in his mind and knows that whatever decisions are reached he is going to have plenty of advance warning with liberal opportunity to do some planning for next season. These facts lend to the ease of discussion in the group to a remarkable degree.

When a new applicant, who has been invited to attend the meeting, hears his application discussed, and disapproved in full, and sees the disapproval duly recorded in his presence, he knows exactly where and how he stands.

Methods for taking care of any additionals that may occur and the matter of nonuse surpluses or "leeways" are quickly and certainly ironed out. It has been found that these are generally minor matters, as stockmen when in a group will let small surpluses ride over for the benefit of the range.

Reductions on preferences for range protection is another matter. The success of this phase of range management depends upon a number of things, among which the most important are:

(1) The fact that final decisions are made at the time of meeting and not delayed to a later date.

(2) The presence at the meeting of both the District Ranger and the Forest Supervisor. If the Supervisor cannot be present, he should certainly have a representative there authorized to act in his stead. The supervisor's office must be represented if for no other reason than for psychological effect.

(3) The planning in advance of his program by the District Ranger and his ability to lead discussion. To retain the interest of association members year after year is admittedly no small task. This requires quick and active interest and a certain amount of imagination.

(4) Familiarity of the range by the Ranger. He should know each part of the range and the range as a whole as well as he does the grounds around his living quarters. Incidentally, too, if the Supervisor is present, as he should be, he had better not be ignorant of either the country or existing conditions.

This idea for displacing the disapproval letter was born only last November, and there is still much to be done to bring it to perfection. The matter of rounding up stray permittees and bringing them into the pow-wow is no mean undertaking, and keeping the locals cooperating with and supporting the "master association" (Deerlodge Forest Livestock Producers' Association) also newly organized means more work. Most important of all, interest in the whole plan or any part of the plan must never be allowed to flag or die.

Perhaps perfection of the plan has not been entirely achieved, but so far as the Deerlodge is concerned it has practically cured the "disapproval disease" and all its related complications. The idea is passed along for whatever use may be made of it elsewhere. (From R-1 Bulletin)

(Incidentally we learn that a schedule of meetings, worked out cooperatively in advance between the Supervisor and the stockmen, enable the Supervisor himself to attend every annual meeting of every association on the Deerlodge. - Ed.)

FILING SPACE - VACANT

By Gordon R. Salmond, Washington

Unoccupied file drawers? Sure! Commodious accommodations, set up to meet demands of application list as a result of Munns' want ad on page 3 of the October 31 Bulletin, are still unused. Quarters are not entirely vacant, however, as Assistant Regional Forester Randles, R-3, has contributed the following observations:

"Mr. Zalaha, a timber operator with a mill at Standard on the Sitgreaves Forest, stated that Long Canyon on that Forest, following cutting and lopping and scattering of brush with skid trails, roads and minor drainages plugged, carried water longer and was clearer than he had ever before seen it.

"His observation was no doubt correct and without doubt the lopping of the brush reduced evaporation and run-off peaks and reacted favorably in sustaining the flow but it may have been that rainfall and snowfall distribution and intensity also had an influence.

"Following the cutting above mentioned young growth present, but of very small size, increased in size rapidly as did the grass and weeds, so that results were better from an erosion prevention standpoint than before cutting. It is our feeling that a grass cover is the best living erosion protection. Nothing, of course, is as good as a non-living litter such as pine needles, in influencing erosion and run-off. Although scientific proof is lacking, it is believed that a properly cut-over area, followed by proper brush disposal, lopping on bare areas, plugging of skid trails and roads and minor drainage channels furnishes increased usable run-off, since the drain on soil moisture is temporarily reduced by less deep-rooted vegetation. The brush is down on the ground where it breaks the fall of rain and delays and slows up run-off. This also acts to prevent erosion. The increase in annuals and grasses takes the place of the trees but as a rule does not tap the deep-seated moisture so that run-off is increased, other things being equal.

"Examples of clean cutting followed by fire are found on certain private operations in this Region. In such cases there is usually present at the foot of the slopes evidence of greatly accelerated erosion in the form of alluvial fans and boulder deposits as well as serious gully cutting in the deep soil types. Examples of erosion under such circumstances, of course, are difficult to find."

Randles says there is more of the same type of information available if it is suitable. The contribution is suitable. More of the same is desired. Was your curiosity sufficiently piqued by this item to reread Munns' want ad? Did Randles' observations recall something in your experience that will help fill the want ad request? If so, dash it off while it's hot, and send it along!

OZARK FOREST BUILDING DEDICATED

The new Ozark National Forest headquarters building at Russellville, Arkansas, which is nearing completion at an approximate cost of $155,000, appropriated by a special act of Congress, was formally dedicated on May 2. Congressman D. D. Terry, Chief Forester F. A. Silcox, Regional Forester Joseph C. Kircher, Supervisor H. R. Koen, and J. W. Hull, President of Arkansas Polytechnic College, participated in the program, which was held in connection with the annual "Agri Day" celebration of the college. Mr. Silcox gave the "Agri Day" address, and Congressman Terry and Mr. Kircher spoke at the dedicatory service.

Speaking on the topic "Symbols of Progress," Mr. Silcox referred to the new building as one of the symbols of the progress of the New South. "Nature has been kind to Arkansas and forest land is still one of her greatest potential assets. If nature is aided by man, if destructive woods practices are stopped and cropping on a sustained yield basis substituted for them, Arkansas's forest lands can become an inexhaustible reservoir of wealth and work, a broad base, and a sound one, for permanent prosperity," Mr. Silcox said.

The two-story structure occupies an entire block on West Main Street and is of native stone and timber construction in a modified English type of architecture. It is 128 feet long by 65 feet wide, and has 23 rooms, each provided with maximum light and air. It is modern in every detail, including a heating plant of advanced design and efficiency. The simplicity and design of the building are in complete harmony with a forest setting—even the tile of the roof has been stained to give it the appearance of old, weathered shingles. -(Excerpts from Newspaper clippings)

PORTUGAL UTILIZING WASTE LAND ON LARGE SCALE

"Afforestation is proceeding apace in Great Britain and some Continental countries where its economic importance is coming to be more and more realized. In Portugal nearly $300,000,000 has been voted in furtherance of a national planting project on waste lands launched in 1936 for completion in fifteen years. The area of sandy tracts along the coast to be afforested is about 30,000 acres. Trees are also to be grown on the waste lands north of the Tagus River which are not suitable for other types of cultivation.

"The forest patrimony of Portugal, so sedulously increased in the days of the early kings, was allowed to fall into neglect till it was well nigh extinguished. At the beginning of the nineteenth century efforts were made to cope with the problem, but the results obtained were small owing to lack of continuity." -New York Times

WENDELIN PRAISED FOR FOREST FIRE MEDAL DESIGN

Mr. Rudolph Wendelin,
U. S. Forest Service,
Washington, D. C.

Dear Mr. Wendelin:

As Chairman of the Board of the American Forest Fire Foundation, I want to take this opportunity to express to you our real appreciation of your valuable help in getting the Forest Fire Medal started.

You made the original design for the medal, which has elicited very general approval for its suitability as well as its strength and charm. You prepared the design for the temporary Citation and later the final design for this Citation.

Through your ability and good taste in preparing these designs you have made a real contribution to the cause of the American Forest Fire Medal, and I want you to know that the Board greatly appreciates this contribution.

Very sincerely yours,

(Signed) J. P. KINNEY, Chairman

American Forest Fire Foundation.

UNITED STATES PAPER CONSUMPTION GROWS

Never before, in the history of mankind, did a nation use as much paper as the nearly 16 million tons consumed in the United States in 1937, according to a recent release of the Bureau of the Census. That quantity was more than half the paper produced in the world.

It provided, on the average, 245 pounds for each person, of which newspaper, book and writing papers made about 100 pounds. The remainder was utilized as cartons, building boards, wrapping papers, and the numerous miscellaneous papers and paper products which serve and comfort modern American life. The average family therefore used more than half a ton of paper, for which it paid something like $40.

Four-fifths of the paper consumed was made in the United States, the remainder being imported, principally in the form of newsprint, of which about three million tons came from Canada.

But the United States is more dependent for its paper than would appear from the paper figures alone. That is because large quantities of pulpwood and wood pulp of certain kinds are imported (chiefly from Canada) to be manufactured in New England, New York, Pennsylvania, and the Lake States. About half the wood fibre in the paper we use was grown on foreign soil.

Three-fourths of the wood fibre in the paper used comes from the spruce, hemlock and fir of the northern forests. Crude estimates indicate that the paper used in 1937 required the cutting of pulpwood on three million acres in the United States, Canada and Northwestern Europe. (WO Division of Forest Economics)

THE EDITOR DISCOVERS

President Roosevelt's reorganization plan No. 2, transmitted to Congress on May 9, included, among other changes, the transfer to the Department of the Interior of the Bureau of Fisheries from the Department of Commerce and of the Bureau of Biological Survey from the Department of Agriculture. In his message to Congress, the President made the following comment regarding these transfers:

"These two bureaus have to do with conservation and utilization of the wildlife resources of the country, terrestrial and aquatic. Therefore, they should be grouped under the same departmental administration, and in that department which, more than any other, is directly responsible for the administration and conservation of the public domain. However, I intend to direct that the facilities of the Department of Agriculture shall continue to be used for research studies which have to do with the protection of domestic animals from diseases of wildlife, and also where most economical for the protection to farmers and stockmen against predatory animals."

The following comment was also included in the President's message:

"I have also considered the problem of certain public lands insofar as they present overlapping jurisdiction between the Departments of the Interior and Agriculture.

"Insofar as crops, including tree crops, are involved there is something to be said for their retention in the Department of Agriculture. But where lands are to be kept for the primary purpose of recreation and permanent public use and conservation they fall more logically into the Department of the Interior. I hope to offer a reorganization plan on this early in the next session."

- - - - - - -

Of the 250,000,000 trees approved for planting in National and State Forests during the current calendar year under the Civilian Conservation Corps' reforestation program, about 140,000,000 will be in the ground by the end of the spring planting season, according to a recent press release issued by the Director's office. The balance of 110,000,000 will be planted this fall. When completed, this year's tree planting program will bring the total number of trees planted for reforestation purposes by the CCC since it was launched on April 5, 1933, to about 1,800,000,000.

- - - - - - -

The Honorable Frank Langstone, Cabinet Minister in charge of forestry, New Zealand, who recently visited the National Forests in Regions 5 and 6, writes Mr. Silcox as follows:

"Your officers on the Pacific Coast were kindness and attention personified, words fail to adequately express my deep sense of gratitude to them for all that they did for me.

Messrs. Show, Hutchinson, Person, Kolbe, Brundage, Plumb and Anderson just exceeded themselves in every way in conducting me to those wonderful redwood, ponderosa, Douglas fir, hemlock, spruce, and western red cedar forests. I just gloried in the greatest feast of a life time in visiting those areas and sitting at the footstool of information imparted to me by your men.

"They also gained an entrance for me to all the lumber and other processing industrial plants, and I assure you it was good, ever will I remain a debtor to your great Forest Service organizations and a thousand thanks ten times by ten."

Mr. Trayer, Chief, Division of Forest Products, reports that the recent Forest Products Research Conference at the Madison Laboratory was widely attended. Seven of the Forest Experiment Stations and three of the Regional Offices were represented, as well as the WO Divisions of National Forest Administration, State and Private Forestry, and Research. The keynote of the conference was an attempt to find out how products research can better contribute to outstanding utilization problems, how it can be made to tie into the forest problem as a whole, particularly forest management, even more effectively than it does now, is the present attack as fully effective as it might be, and what reorientation, if any, is needed. These broad questions invoked a great deal of discussion on the part of the field men, Washington Office men, and Laboratory staff, and it is expected that much good will result from the best conference on utilization ever held since the Laboratory was established nearly thirty years ago.

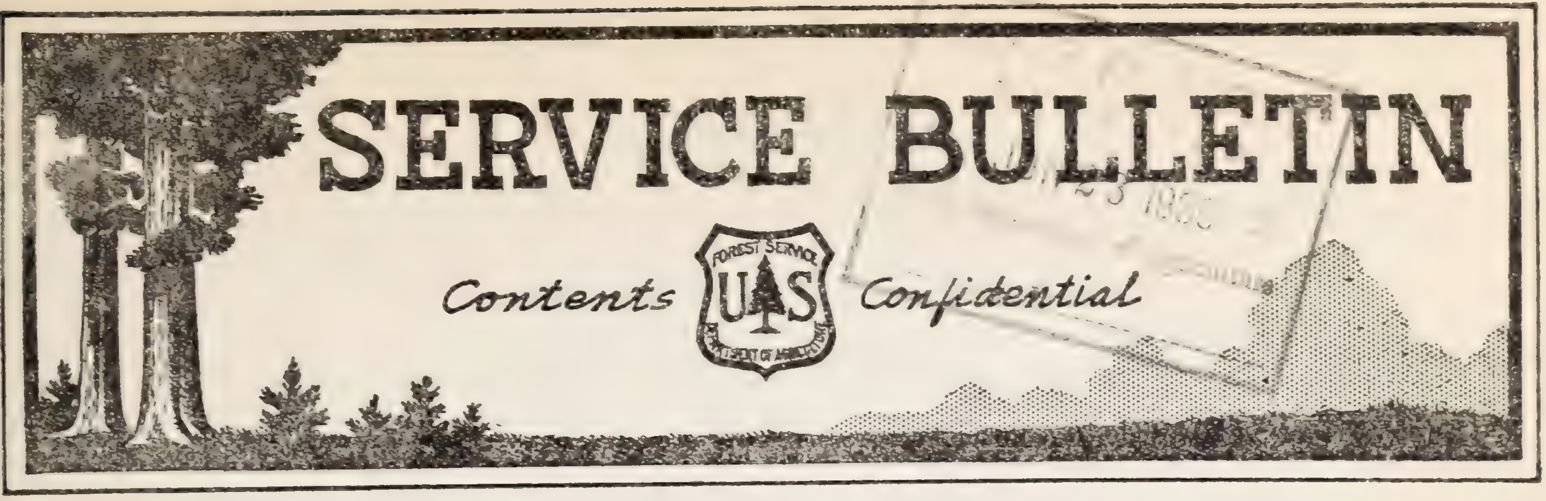
The production of lumber by selected mills in the United States in 1938 decreased 21.1 percent as compared with the production of the same group of mills in 1937, according to a preliminary report recently released by the Bureau of the Census, Department of Commerce.

This report was compiled from returns made by 897 mills, which contributed 53.1 percent of the total cut of all mills reporting for 1937. The cut of these mills—each of which sawed at least 2,000 M feet, board measure, either in 1938 or in 1937—amounted to 10,893,671 M feet in 1938 as against 13,800,248 M feet in 1937.

The amount of decrease, by important regions, according to this preliminary report varies from 12 percent in the New England States to 46 percent in the Prairie States. However, the actual production in 1938 and its relationship to the 1937 production may be greatly changed when the census of manufacturers is complete and all the reports are received.

WILD DRIVERS BEWARE!

Accident reports to our Safety Section show that "speed too fast for conditions was a factor in 42 percent of the CCC vehicle accidents. Proper control of speed is therefore the first move necessary for reducing vehicle accidents." Of 51 fatal injuries to CCC boys during 1938 in USDA camps 43 were to boys attached to Forest Service camps. Keep that heavy foot off the accelerator!!!



SERVICE BULLETIN

Contents Confidential

Vol. XXIII No.12 Washington, D. C. June 12, 1939

THE CORRELATION OF LAND USE PLANNING ACTIVITIES WITHIN AND FOR THE FOREST SERVICE

The land use planning programs and projects of the Forest Service, of other Bureaus of the Department, and of other public and private agencies, tend to become more numerous, diverse and complex. Unless adequate principles and practices of correlation are established, there may be many such programs or projects independent of and unrelated to the general pattern of planned land use which gradually is being evolved. Through lack of understanding or information, certain activities may be duplicated, while others of equal or greater desirability receive inadequate or no attention.

To meet this condition there is hereby established as a staff function the position of Correlator of Land Use Activities, to perform the following duties:

1. Coordination of land and resource planning work by the several groups of Divisions of the Forest Service; the fields and functions of such groups of Divisions and the Assistant Chief in charge of each to remain as at present; the necessary coordination to be accomplished through consultation with the Assistant Chief or through reports and recommendations to the Chief and/or staff.

2. Coordination in the field of land and resource planning between the Forest Service, the other Bureaus of the Department, and the other public and private agencies engaged in land use planning activities.

3. The direction of such land use planning activities as do not fall within the field of the other Divisions and as hitherto have been or hereafter may be assigned to Divisions under the supervision of the Correlator.

4. Assembly and summarized presentation to the Chief and the staff of current data on land use planning activities, programs, projects, plans and progress which requires consideration at this level.

Until further notice, the functions of Correlator as above set forth are assigned to Assistant Chief L. F. Kneipp. The Division of National Forest Planning and Establishment (hereby redesignated the Division of Forest Land Planning and to continue its functions in National Forest Planning and Establishment and also to serve as an assisting staff to the Correlator), and the Division of Land Acquisition will continue under Mr. Kneipp's general supervision. In order that Mr. Kneipp's time may be most fully available for the duties outlined in this memorandum, General Inspector C. J. Buck, for the time being, will serve as Acting Chief of the Division of Land Acquisition and be in charge of all of the activities of that Division.

F. A. SILCOX

WHAT ABOUT PUBLIC SPENDING?

By Bernard Frank, Washington

How far should the Federal Government go into debt in meeting the problems of unemployment, inadequate purchasing power, business recovery, and conservation? On what specific grounds and for what types of projects can Government spending be justified? Should expenditures be incurred only for directly revenue producing activities, or would activities producing no direct receipts but definitely contributing to increased individual and community incomes and buying power also qualify? These and similar questions concern all of us - as foresters and as citizens - today. Two recent publications dealing directly with this intriguing current issue are worth noting.

The first is entitled "An Economic Program for American Democracy," a short, very readable book by Seven Harvard and Tufts Economists. The second is a discussion appearing in the March 1939 issue of Fortune Magazine entitled "The Effects of Government Spendimg upon Private Enterprise - a Synthesis of Opinion at the 1st Fortune Round Table."

In "An Economic Program For American Democracy," the authors, after tracing briefly the historical events and national trends leading up to the present situation, chart out "a program for the future," stating that "the immediate problem facing America is to raise the national income to a level at which all of our resources will be employed; the long-run problem is to keep it there." Under the discussion on investments as a feature of the permanent program appears the significant title "Conservation of Natural Resources and Flood Control." In this section the following statement is made: "The term conservation applies broadly to the careful husbanding and use of all natural resources. We endorse this principle, but emphasize here its application to the Nation's soil, water, and forest resources, where appropriate measures will entail public investment on a large scale." After briefly reviewing the consequences of the past abuses of soil and water resources the authors propose that "A co-ordinated long-time public program is needed to halt this waste and destruction, to insure to future generations the adequacy of our forest and soil resources, and to control our water resources in the interests of beneficial public use. Thus far, the Federal Government has made but small beginnings in a co-ordinated attack upon this problem.

"The major lines of investment in such a program would be:

"i. Reforestation, afforestation, and development of better protection against forest fires. In the so-called Copeland report of 1933, the U. S. Forest Service recommended a 20-year program for the planting of 25 million acres to meet only our most urgent watershed protection and forest replacement needs.

"ii. Engineering works to retard surface run-off and to conserve moisture in arid regions. These works are needed mostly on agricultural and grazing land, and only to a lesser extent in forest areas. Such works would be, principally, contour terraces, check or retention dams in streams and gullies, and small ponds and reservoirs.

"iii. The construction of larger dams in rivers and large streams. In a co-ordinated soil, forest, and water conservation program fewer dams for flood control purposes would be needed than at present, because the flow of water from the land would be retarded, and much of it would be permanently retained in headwater areas. However, many dams will be needed for flood control, and these will contribute also to improved navigation, electric power production, and to reclamation in the arid Western regions."

The book treats many other items which though on the surface appear only of indirect interest to conservationists are in reality worth careful study because of their significant bearing on our particular problems.

The Fortune Magazine forum consisted of leading representatives of industry, agriculture, labor, and the economic and engineering professions. It is worth noting that many of the conclusions arrived at by the group as a whole agree closely with those advanced by the authors of the first named publication. Under the heading "The Present Situation" the concensus of opinion is that in view of the appalling rate of wastage of our physical resources leading to an estimated loss to farmers during the next fifty years of from $25,000,000,000 to $30,000,000,000, "much remains to be done if we are to maintain intact and improve the physical resources of our land for oncoming generations." This in the face of recognition that the Administration has already done much for conservation and reforestation.

In discussing fiscal policies the opinion of the majority of the group is that "The country . . . finds itself in a vicious circle. The budget cannot be balanced immediately, but the persistence of deficit financing is a major cause in holding back long-term recovery. The problem is how to escape from this circle.

"In our opinion the first step should be to change the form of Government spending. Many Americans believe that this spending has been wasteful, unproductive, and even demoralizing to the recipient. This criticism may overlook the great administrative burden that Government had to assume during the depression, and it does not give credit for many constructive results achieved. For example, most of the members of the Round Table believe that the CCC camps have been worth more than they have cost, and that both the WPA and PWA have constructed a number of useful public works. Other members of the Round Table are of the opinion that the expenditures of the Agricultural Adjustment Administration to increase purchasing power of farmers have been justified."

While admitting the need for public expenditures and refusing to be alarmed at the trend toward increasing debt as such, the group recognizes that "the government in our opinion has not paid adequate attention to the effects of various types of government expenditure upon private enterprise ... Likewise a government may contract a debt for socially useful projects, but after a certain point the debt capacity of the government depends upon the extent to which government spending has contributed to the building up of the productivity of the national economy." An instance given of this type of expenditure is the opening of a highway that assists farmers more easily to reach their markets. Again, "the test of a debt is not its size but its consequences ... We believe that if government examined each of its projects to determine its effect upon the assets of the country and the productivity of private enterprise it would remove a future cause of apprehension over the form of spending." Obviously conservation projects contribute to the building up of the national economy even though they may not necessarily result, as in the case of many National Forest activities, such as watershed management, in direct administrative receipts.

In discussing how we might avert a new boom the group suggests that "government may assist through the taxing power and public expenditure in expanding economic activity during a depression and reducing it when prosperity threatens to run into a boom." (Readers of the

Service Bulletin please note the similarity of this statement with the description of Sweden's cyclical method of budget balancing.) The group further supports "the establishment of the national public works policy recommended in December 1936 by the National Resources Committee to provide a reservoir of selected projects which can be utilized in periods of economic pressure." This it claims "would not only remove many popular misgivings about the nature of government spending, but would give the government an efficient instrument with which to combat the approach of a new depression."

It is encouraging to note the carefully considered attitudes of leaders in American industrial and economic life towards activities of the nature of natural resource conservation. Many of us have felt at times that we were succeeding in convincing only ourselves. It is evident, however, that we can count on increasing public support for our programs so long as they are thoroughly justified. Further, that such justification need not depend solely on the narrow basis of obtaining increased receipts from National Forest activities but on the far broader and more socially significant basis of contributing through National Forest investments and operations to the Nation's productive economy.

A TRIBUTE

In memory of the men of the Forest Service who gave their lives in the World War, services were held on May 29 before the Forest Service Memorial Tablet on the third floor of the South Building by members of the Washington Office. A wreath of roses and evergreens was laid beneath the tablet by members of the American Legion. The following address was made by Assistant Chief E. A. Sherman:

"At this hour each year we lay aside our accustomed work for a few moments while we pay tribute to the men whose names upon this marble slab make it a sacred shrine.

"This day throughout America is dedicated generally to the memory of our beloved dead. There cannot be in this assembly here a single person who has not somewhere his own shrine of personal sorrows and individual loss: Perhaps the little shaded graveyard in the old home town in which mother or father rest in eternal sleep; perhaps on the trackless desert, the tangled wilderness, in the unfathomed seas where friends of our youth ended life's fitful journey.

"But today we for the time turn from all these personal shrines to this one in which we all share alike a mutual sorrow and a common loss. In doing so we are not unmindful that their sacrifices and our losses are not without spiritual fruits of compensation.

"Be not deceived. God's work is not mocked by purveyors of cynicism and doubt. These men did not die in vain nor in a mistaken cause. Theirs was no selfish bid for personal fame. Theirs no unthinking obedience to a megalomaniac's gamble for world power. Theirs was the calm courage of men who generously faced death with a smile hoping that future generations of men might live in peace.

"Away with the voice of the mocker who suggests that the death of even the least of these was a futile sacrifice to an unattainable ideal. The noblest work of Creation is not sacrificed as an idle jest. Reason rejects it; Man's sense of justice revolts at such a conclusion. Inevitably we are forced to accept the belief that somehow, by direction or indirection, the sacrifice made by each of these shall hasten the coming of a day when Peace shall reign forever and war shall be no more."

FOREST SERVICE LOGGING

(An address by J. A. Fitzwater, WO Division of Timber Management, before the National Wooden Box Association's Meeting at Washington, D. C., May 18)

I want to say right at the beginning, gentlemen, that the Forest Service, in asking for an appropriation to do its own logging, in no way contemplates competing with private industry.

We told the Bureau of the Budget and the Congressional Committees that the type of chances the Forest Service would undertake to log are those where there is need for cutting, silviculturally, but in which it has not been possible to interest a purchaser. Before a private operator becomes interested in a timber chance, he must see his way clear to return his investment in stumpage plus a margin for profit, risk, and interest. Under our pledges, the Forest Service is also obligated to return the appraisal value of the stumpage. To do this successfully it also must allow some margin for risk but, due to the silvicultural benefits obtained, can afford to accept a smaller margin. The private operator, to become interested, must see a spread of from $2 to $4 or more in his margin, and this is usually the deciding factor in our smaller chances as to whether or not we can make a sale. The Forest Service is laboring under no misapprehensions as to logging. It does not expect to log any cheaper than does the private operator; in fact, it feels it will be doing well if it logs as cheaply.

It is not intended to deprive loggers of the opportunity to purchase National Forest stumpage. As previously mentioned, the authority will be used to accomplish needed cutting on areas in which it has not been possible to interest private operators.

Now as to the logicalness of the Forest Service doing some of its own logging. Timber is a crop--a crop grown for harvesting just as the farmer grows his wheat and corn. The farmer does not dispose of his crop standing. When it has ripened, he harvests it and sells the grain. It appears just as logical for a forest owner to harvest a crop of ripe timber and sell the logs. The Forest Service no more desires to go into the manufacture of lumber than does the farmer to go into the making of flour. It is the general practice abroad for the timberland owner, public or private, to grow and harvest his crops. Many in this country do the same thing.

In discussing this item before the Bureau of the Budget, it was clearly brought out that the Forest Service could not be expected to return the value of the appraised stumpage plus a small margin for risk unless it were free to select its labor as would any private operator. In other words, it could not be required to use relief labor. But the Forest Service will not be able, even if it wanted to, to squeeze down labor rates as is done by some of the smaller operators. Labor will be recruited largely from two sources--(1) farmers who need to supplement their agricultural activities with other seasonable work and (2) employees who work for the Forest Service for such periods as there is work available and for whom it is desirable to extend the period of employment--to yearlong if possible. These men are dependable, loyal workers and form the backbone of the Forest Service fire protection organization. They are, as a class, capable woodsmen and well qualified to do logging work.

The Forest Service will keep costs on its logging operations along the same lines as those kept by private industry, including overhead, depreciation, etc. The Forest Service will not have such items as taxes, interest, and social security charges to meet, but will have compensating items such as marking, advertising and will have to include the cost of sick and annual leave in the labor item. Contributed time will be charged as a cost the same as other labor or supervision.

The proposal is in no way tied into manufacturing. The Chief of the Forest Service, in asking for an appropriation for making a small start on logging, stated that he had no intent to saw or manufacture lumber for commercial sale, but wanted, as a manager of a productive forest property, to be able to cut the timber which needs cutting and move it to where it could be sold in round or split form, and that that process would be a logical part of the job of land management.

We believe it is inevitable that the movement to have the owner of forest property harvest his own crop is going to grow. This is particularly true with reference to young growing stands under management. It is not so true with reference to mature stands and the contemplated activity will therefore have but little bearing or influence within present large lumbering centers. Most of the initial activity would be in the East where we are dealing with culled over or second-growth stands.

INTERNATIONAL TRYOUTS AT MOUNT HOOD

By M. E. Becker Mount Hood

As the last skier came hurtling down the Turtleneck Course on Mount Hood Forest Sunday afternoon, April 2, a great sigh of relief was breathed by those responsible for the successful conclusion of the International Ski Tryouts. Ever since the Olympic Tryouts were held at Rainier in 1935, the Cascade Ski Club and the Oregon Winter Sports Association planned for a similar meet to be held at Mount Hood. Merely hopeful at first, their ambitions took a giant stride with the completion and dedication by President Roosevelt of one of the finest lodges in America -- Timberline. It is believed that a survey map of the downhill course, prepared by the Forest Service, had a great deal to do with the ultimate decision of the National Ski Association to select Mount Hood for the tryouts.

The Oregon Winter Sports Association and the Cascade Ski Club selected a tournament commission consisting of Berger Underdahl, Fred McNeil, Fred Van Dyke, Harold Hanson, Dale Cowan, George Henderson, and Harold Kelly. They created twenty-two sub-committees which included the Race, Course Setting, Competition, Timing, Recording, Finance, Budget, Rules, Housing, Forest Service, and other committees.

The part played by the Forest Service in the success of the meet was a considerable one. In conjunction with the State Highway, it rushed to completion the west leg of Timberline Road in time for use during the race. On the day before the big event, thirty-five Forest Officers held a traffic meeting at Alt's Camp where traffic and parking problems were studied. Five radios were used in directing traffic.

Starting about a week before and lasting until after the races were over, Forest Service men worked both at the Ski Bowl and at the Lodge. On the Downhill Course two large tents were erected at the head of the men's and women's courses and another at the finish line. Five tents were spaced at intervals along the line, each fully equipped with first-aid supplies and a toboggan. On the day of the tournament, these were manned by members of the Ski Patrol.

The Forest Service transported and operated radios for timing. It was responsible for roping off about 1600 feet of dangerous cornices and other hazardous spots and emphasizing the danger by fastening red pennants to the rope. In preparation for the slalom race, hundreds of pounds of equipment such as electrical timing, tents, poles, radios and the like were hauled by toboggan three-quarters of a mile over a 30 percent grade from the highway to the Bowl itself. Nearly all of this was done by the Forest Service. Two Forest Officers were honored by being made official starters for the tournament, another acted as a coordinator at the Lodge.

Still another service rendered was the transportation — on the two Forest Service "Sno-Cats" — of course provers, timers, and contestants themselves to the starting places on the Downhill Course. Around 150 contestants were accommodated and all reached their scheduled places on time.

The chief vote of thanks was due the forces that controlled the weather. The week of clear, sunshiny, warm days for the contestants to practice, climaxed by two extra-special tournament days, was a factor that nearly equalled the efforts of the Forest Service men to bring about the success of the entire meet.

COSTS OF PRODUCING LUMBER

Neff of Region One has picked apart the costs of lumber f.o.b. mill for seven of the large sawmills working with western white pine. The costs, exclusive of stumpage and profit and risk margin, have risen to $34 per M log scale for 1938. The striking thing, however, is the way the "out of sight" costs contribute to the total. For example, once the logs got to the pond, sawmill operation, yard expense, kiln drying, and depreciation were each less than any one of the items of general expense, selling, or shipping, and the total for the last three items was well over half of the total manufacturing cost. The cost of getting the logs to the mill was about equally divided between a group consisting of hauling, freight and general expense and a group covering improvements, felling and bucking, skidding, and other camp expense, with felling and bucking a relatively minor item.

Here is the explanation of why the "father and the boys" portable sawmill operation can thrive while the big mills are moaning. It costs money to give the service the big mills offer in the way of well-manufactured lumber, graded, marked, kiln-dried, promptly and carefully shipped; and it takes a big overhead organization too. The small mill does not pretend to give similar service, but can produce "lumber" for very much less, even if its costs per M in the woods and in slicing up the logs on the headsaw are more.

This is not new. Neff has, however, put the facts into striking form. - E. E. Carter

REVIEW OF REGION 5'S BULLETIN ON AERIAL DELIVERY OF SUPPLIES

By Armella Friedl, Washington

Region Five's recent report on "Aerial Delivery of Supplies" makes the reader realize that the Forest Service is doing things with airplanes; things, it is true, which serve such a prosaic and constructive purpose as saving a national resource rather than the exciting and destructive objective present when airplanes are bombing cities and civilizations. But there are times when the prosaic and the constructive contribute the most to man's welfare. Such a time, it would appear, is evidenced by the Forest Service experiments in the use of aircraft for fighting forest fires.

Forest Officers are seemingly duplicating the miracle of the manna from heaven that fed the hungry multitude in biblical times. The promptness and efficiency with which fire fighters are being fed and supplied with equipment today would indeed have seemed miraculous ten or twenty years ago. On five fires on the Siskiyou National Forest last summer, 112 tons of supplies were delivered by airplane. And there was another fire in Oregon, under State jurisdiction, where 80 tons were dropped to the fire fighters below! Perhaps the "Foreword" of the report is right in saying, "as a means of transportation in fire suppression work, the wagon has passed into oblivion and the pack mule appears to be headed in the same direction."

The report states that the cost of delivering supplies via airplane, including cost of parachutes and airplane hire, is almost twice as great as animal pack delivery, the average cost in Regions 5 and 6 being six cents a pound. But the importance of the speed of attack on a fire, with its ultimate lower damage to the forest resource, brings airplane delivery costs down so far that the advantage of the airplane cannot be doubted. It is also pointed out that there have been many cases where routing delivery of supplies to remote stations actually was more economical with aircraft than by animal pack. From the cost angle, therefore, it would seem that the airplane can at least hold its own with the ground delivery forces.

The highly desirable flexibility in ground force movement which airplane delivery permits is also mentioned in the report. Fire camps can be shifted at will since pack stock to move the camps and the time element are eliminated. Crews as well as the main camp can be sent to isolated areas whenever such moves seem desirable.

It has been found that any commodity needed by the fire fighters can be lowered from an airplane by means of cargo parachutes -- anything, that is, that isn't too big to get through the door of the plane. Indeed the time may even come when airplanes will deliver supplies that have never been delivered to a fire camp before. For instance, hot, ready-to-eat, aerial-delivered, turkey dinners complete from soup to nuts may sometime become practical, especially if the possibility of thereby doing away with camp kitchens is considered. When that time comes, the camp cook and the bottle washer can forego their former tasks and concentrate on the main job of putting out the fire.

An ingenious and economical answer to what should be done with the parachutes after they have safely lowered food and tools appears in the report. When opened these chutes are squares of burlap generally eight or ten feet square. Two such canopies sewed on the edges with willows or other pliable stems and stuffed with needles and leaves make a warm and comfortable blanket or mattress. After thus serving to transform a fire-fighter's tiredness into freshness, they could be folded, returned along with the other equipment, and used again at the next fire.

Pilots and droppers, as well as the catchers below, must be early risers for best results, the report informs us. It has been found advisable to complete aerial deliveries as near 9 a.m. as possible since successful delivery after 11 a.m. is problematical if smoke is bad.

Other hints contained in the report, gained no doubt from experience, include such items as "Do not place heavy articles on top of easily crushed or broken supplies" and "Tie loads to parachutes so that on landing the maximum surface comes in contact with the ground."

THE EDITOR DISCOVERS

The White Mountain National Forest recently launched a radio campaign for the prevention of forest fires. A transcription bearing a series of spot announcements was distributed to 78 radio stations in New England, several surrounding States, and Canada. The spot announcements contain information for campers and tourists on recreation in the White Mountain National Forest, and warn the public about the increased fire hazard brought about by the destruction of the hurricane last fall. The announcements are made by a character called "Ranger Crawford," created especially for the purpose of conveying these Forest Service messages to radio audiences.

The material for the transcription was prepared by Marvin Beers of the I & E staff in Washington, who also supervised the production. A special seal, bearing the official Forest Service insignia, was designed for use on this record, and will be used on all recordings distributed by the Service hereafter.

- - - - - - -

Secretary Wallace on May 24 amended Regulation T-1, Sec. 147.02, of the rules and regulations for the occupancy, use, protection, and administration of the National Forests by adding thereto the following paragraph;

"(P) Having in possession, or firing or causing to be fired any tracer bullet or tracer charge onto or across such lands."

This amendment is primarily a fire prevention measure. Tracer ammunition was found to have started a fire on the San Bernardino National Forest in 1937 and in prosecution by the courts it was proved that the fire was thus set. Recent tests made with tracer bullets by Army officials at March Field in California in the presence of Forest Officers showed that when such bullets are fired into dry grass or other inflammable ground cover, they invariably start fire at point of contact.

- - - - - - -

A total of 3,024 CCC enrollees left the Corps in March to accept outside jobs. This is the largest number to leave for this reason in any month of the present fiscal year. There were 723 discharged for physical disability and 84,440 because of expiration of their enrollment and other causes.

- - - - - - -

Effective May 1, 1939, W. A. Dayton, of the Division of Range Research, Washington Office, was appointed to the vacancy on the Editorial Committee of the American Joint Committee on Horticultural Nomenclature caused by the recent resignation of the distinguished landscape-architect, Mr. Frederick Law Olmsted. His duties, however, will be to replace the late Dr. Frederick V. Coville as representative of the Department of Agriculture and technical editor of the new edition of "Standardized Plant Names" and, in this capacity, Dayton will be responsible for the preparation of that work, to which he will devote his entire time until its completion. He will welcome any constructive criticisms or suggestions from the field on the present nomenclature of "S.P.N." His address is Rooms 401-2, Atlantic Building, U. S. Forest Service, Washington, D. C.

- - - - - - -

At its meeting on June 1, the National Forest Reservation Commission approved the purchase of 243,926 acres of land in 24 States and Puerto Rico for incorporation within 48 National Forests and Purchase Units. By geographical units, the acreage approved includes: New

England, 850 acres; Appalachian, 90,468; Piedmont, 12,403; Southern Pine, 19,257; Ozark and Central Mississippi, 53,325; Lake and Upper Mississippi, 45,006; Utah, 22,453; and Puerto Rico, 164.

- - - - - - -

A million poster stamps, reproductions of the new forest fire prevention painting by the celebrated artist James Montgomery Flagg, are being issued by the American Forestry Association in a nation-wide campaign this summer against man-caused forest fires. The stamps, in four colors, are designed for use on letters, envelopes, and other mailing pieces. They are available at $1.00 a sheet of 100 stamps, and may be obtained by writing the American Forestry Association, 919 17th Street, N. W., Washington, D. C.

ANOTHER TRAINING SCHOOL IN MEXICO

Announcement has been received from the Chief of the Department of Forestry, Game and Fish of Mexico that they are establishing a school in the National Forest Reserve, Las Molinos de Perote, Vera Cruz, to train Engineers (Foresters). The notice states that the area selected is mountainous, covered with beautiful timber, with lakes and is near the tropical coast. The announcement is signed by Engineer Miguel A. de Quevedo, who is known to a number of American foresters as he has visited the United States several times. For some years Mexico has had a forest guard school at Tlalpam, D. F., Mexico, which is now in charge of Prof. Sergio Barojas.

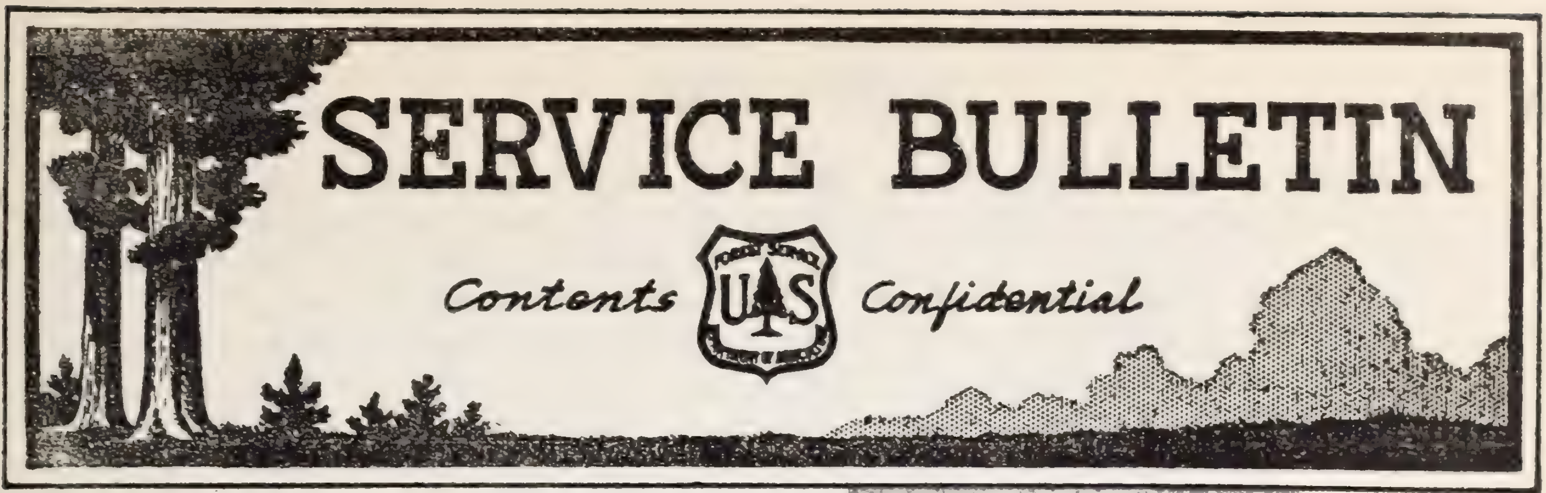
ENGLAND COUNTS HER TREES

Great Britain is counting her trees. Launched by the Forestry Commission, the woodland census is surveying every wood of five acres or more not only as to the number of trees it contains, but as to its probable value, the species, condition and age of the trees, the extent of felling and replacement, and other details.

The chief motive inspiring the Forestry Commissioners is a realization of the precarious position of the nation's timber supplies in the event of another war. The largest timber importer in the world, Britain last year bought 70,000,000 pounds worth of our timber. Of that amount the bulk had been carried long distances by sea, a traffic that would be vulnerable to attack. The home-grown product represented only 5 percent of the nation's timber consumption.
(New York Times)

CCC NURSERY ACCOMPLISHMENT - R-2

Mr. Cochran said he had been particularly pleased, when visiting the Monument Nursery operations last week, to note the good work being done by the CCC transplant crews. The boys were doing as much work in 6½ hours as hired labor accomplished in 8 hours. He believes this is due entirely to planning and leadership on the part of the foremen. They have picked leaders in the pace-making jobs, and as a result a crew of 25 men is planting 35,000 trees a day. (R-2 Staff Meeting, 4/29/39)



SERVICE BULLETIN

Contents Confidential

Vol. XXIII No. 13 Washington, D. C. June 26, 1939

LIBRARY
RECEIVED
☆ JUL 1 1939 ☆
U. S. Department of Agriculture

ROADSIDES

By C. A. Betts, Washington

Forest truck trails and highways are the key to the open door through which more than 30,000,000 users annually enter the National Forests and through which travel the endless wealth-making products of a sustained yield conservation program. The land, water, and other resources of the National Forests which cover an area larger than New England, New York, New Jersey, Pennsylvania, Delaware, Maryland, West Virginia, and Ohio depend largely on these roads and trails for their administration, protection, utilization, and development. Particularly true is this since the rangers and fire fighting crews have switched from Heigh-Ho Silver to the low clearance automobile.

As a result, the truck trail mileage in the 158 National Forests has grown from 5,260 miles in 1920 to over 80,000 miles in 1938. This does not include the major forest highways. The maintenance of these roads is a problem that increases each year. In an effort to solve it, the art and technique of road building, like that of road machinery building, is progressing at an unprecedented rate.

Stabilized roadsides are one answer. Here the new science of soils mechanics as well as erosion control rates high. As in the stabilization of road subgrades by the combining and mechanical grading of soils so as to prevent lateral flow or change in volume under load, the stabilization of roadside slopes aims at holding materials in place. By so doing, maintenance costs are reduced.

It is obvious that road construction that produces the least disturbance of the natural balance and permits storm run-off to reach natural channels without silt loads has dual advantages. Both the lands below the roads and the fish streams, where too much silt destroys fish food, profit by controlled road drainage.

Incidentally, the same vegetation or other roadside treatment that holds the banks in place also lends to the attractiveness of the area. Such aesthetic treatment is more and more in demand as the recreational use of the forests continues to exceed expectations. In fact, the evolution of roadside treatment is the inevitable answer to changing conditions; it is bound to play a vital part in road work from now on, with increased emphasis on the erosion control phases where needed.

This is a country of contrasts; therein lie its self-sufficiency and strength. Therein, also, lies the economic feasibility of correcting the "sore spots" where stability is threatened, for only a small proportion of our roads are unstable. Nature has planted and held intact many of our steep mountainous roadsides. Good road drainage has done the rest. The erosible areas are definitely limited; in some cases can be avoided in the location of the road. In Southern California, where land and property values justify extraordinary precautions, roadside erosion control is being practiced on a scale that would be impracticable in the Bad Lands or even in low value range lands. Similarly, in the light clay and loess soils of Region 8, special vegetative measures are called for; whereas, in the northern forests, particularly in New England and the Northwest, nature has provided vegetation and, in most cases, stable soil. Even there, however, roadside planting for appearance is being practiced on a rather extensive scale.

Each Region is expected to be cognizant of the problem areas where slides and high maintenance are the penalty for failure to consider soil and geological characteristics of the terrain in the location and design of the roads. Each Regional staff is expected to incorporate in its planned transportation system the most modern developments in road stabilization that are economically justified by the service the road is to render.

In the reconnaissance, surveys, and location of roads and trails, future slides and washes can often be prevented by taking into account the geological formations, slopes, soil characteristics, forest cover, and adjoining land use. The time to iron out difference of opinion is before construction begins, not afterwards.

A low standard truck trail can often be constructed with so little clearing and grading that its presence on a wooded hillside would not be suspected from across the valley; whereas, a high standard auto highway would leave unsightly cut and fill gashes across the landscape. One-way road possibilities have not been exhausted.

Construction methods that provide compacted fills, stable cut and fill slopes (rounded at the top where necessary to aid revegetating) and that insure well drained roadbeds are now being adopted. The use of toe walls of masonry, concrete, or timber cribbing to reduce the length of exposed cut and fill slopes and to prevent encroachment on streams is finding increasing use since the advent of relief labor. So also are toe drains, non-scouring gutter grades, gutter paving, gutter checks, dips, shoulder berms, masonry drop inlets, and outfall structures. The use of heavy road building equipment, such as rippers, trail builders, and power shovels makes it possible to curtail the use of dynamite; thereby, lowering the number of slides.

The holding of roadsides in place by planting or by shingling them with brush becomes a first line of defense against roadside erosion. At the same time care must be taken not to create a fire hazard. Roadside planting depends to a great extent on the use of local native plant species for its success. The honeysuckle of Region 8 does not grow in the Rockies, the baccharis of California has its altitude limitations and so do innumerable other plants. The use of rye or other grain as a nurse crop and the use of mulches of woods litter, hay, or weeds on slopes of 1:1 or flatter, in order to retain moisture while seeds are sprouting, has wide application. The use of contour furrows, strip planting, wattles, sodding can be made to fit innumerable soil types if the ends justify the expenditure for back fixation. To hold topsoil, planting should follow grading at once. Many preventive and remedial measures are known and are described along with road standards in the Truck Trail Handbook, revision of which is now under way.

There are 32,000 miles of existing truck trails listed as needing betterment and an equal mileage planned for new construction under the comprehensive transportation planning surveys. Handicapped though they have been by the conflicting needs for more miles of roads to give fire protection or recreational access on the one hand, and lower upkeep costs on the other, the Forest Service road builders have, nevertheless, advanced so far in roadside treatment and development that, in some States, their methods have become the guide for other road building agencies, of whom there are as many as fifty on one forest in California alone.

Only a fraction of the existing forest roads were constructed by the Forest Service. The bulk of the work has been done under Forest Service permits by other agencies, Federal (B. P. R.), State, County, and private.

Special use permits for right-of-way over forest land are protection against violation of conservation principles by other agencies or users. They are most effective when accompanied by plans and specifications describing Forest Service requirements in detail; when enforced by close contact and inspection during construction.

This use of the forest by so many public interests means that education, not only of our own staffs, but also of the public users, is absolutely imperative. Education by demonstration accomplishes most.

Nor is the roadside responsibility limited to the Engineering Division. The cooperation of Range Management in keeping over-grazing from unleashing flood torrents down the hillsides upon the roads is a big factor in the Southwest. The cooperation of Timber Management in obliterating or brushing abandoned logging roads is needed in the North and Southeast. The cooperation of Research in developing suitable plant species and planting practices for road banks is required if the Forest Service is to hold preeminence in revegetative roadside control.

A mountaineer on one of the National Forests, when met by stray hunters and asked, "Where does this truck trail go?" responded, "Oh, it don't go nowhere. It stays right here." It is to be hoped that he was right and that, instead of washing downhill in the future, all truck trails and forest roads will stay where they are constructed.

PROGRAM OF GOVERNMENT COOPERATION WITH FOREST INDUSTRIES INITIATED

By G. D. Cook, Washington

Recently the National Lumber Manufacturers' Association issued a release, quoting almost entirely from Department of Commerce reports, calling attention to the heavy over-cutting during the past several years in most of the European timber-producing countries. The release stated that Germany is known to have been over-cutting for the past four or five years beyond all limits set by conservationists and that the rate of cutting increased in 1938. Russia is reported to be confronted with transportation difficulties and largely increased hauling distances to the mills, with the result that her exports of softwoods in 1938 were 25 percent smaller than in 1937. The supply of sawn timber in Sweden and Finland, it is reported, has been reduced, and it is expected that there will be a substantial reduction in lumber production in these countries in 1939. The general picture is one of decreased export supply of European softwoods, with general overcutting of European forests during the past several years and an increased demand. Great Britian, for example, probably will need nearly four billion feet of softwood lumber in 1939; and according to the Department of Commerce estimates, it is stated that imports of sawn softwood from Europe and Canada are expected to be over 200,000,000 feet short of requirements for the year.

And yet American export of softwoods has been generally declining. In 1938 we reached a 40-year low in exports and occupied fifth place in the list of exporting nations.

Almost coincident with the above mentioned release, the May 15 issue of the "Canadian Lumberman" carried a full-page advertisement by the Department of Lands and Waters of the Province of Quebec, calling attention of foreign or over-seas' buyers to the "almost unlimited supply of desirable timber in Quebec." The Department offers "the fullest cooperation in order that production and marketing of the forest wealth of the Province may be successfully developed."

Representing an ownership of about 175 million acres of forest land and assuming the leadership in the Nation's forest policy, regardless of land ownership, it is evident that the Forest Service has a large interest in the whole market situation for forest products. Giving clear recognition to this fact, Chief Forester Silcox strongly supports active cooperation between the Forest Service and other Governmental Departments and organized forest products industries in the interests of maintaining and expanding markets for American wood in its various forms. As one step in this direction, the Division of Private Forestry has recently been active in the formation of a committee, representing the Department of Commerce, the Department of Interior, the National Lumber Manufacturers' Association, the American Pulp and Paper Association, the American Pulpwood Association, and possibly others to correlate and direct efforts on a National scale in the interests of American forestry and American forest products industries. In addition to better practices in the woods, there are involved such things as tariffs, excise taxes, maritime freight rates, the general field of reciprocal trade treaties, labor relations, fluctuating currencies, dumping of foreign wood products at prices below cost of production, and many other factors, as they affect, in one way or another, markets for American wood.

The first meeting of this Committee was held on June 2, and it is expected that additional organizations, including governmental, industrial, and others will be represented as time goes on.

Thus, in addition to the fine work of the Forest Products Laboratory in developing new and improved uses of wood in its various forms and the aid given generally through Research, the Forest Service is embarking on a far-reaching program of government-industrial cooperative relations on problems involving a mutuality of interest. The Chief believes this newly formed Committee "should be used to maintain intimate contact not only with industry, but with the work of other Government Departments" and that it should be "the focal point for planned industrial relationships and in general working cooperatively with forest enterprises and in the promotion of better conservation practices through the creation of more favorable industrial conditions."

LIVING IN WASHINGTON

By Edward Ritter, R-7

Frequently one listens to the sad tale of a forester who is being transferred to Washington. At times one is a party to a discussion bearing on the subject. Only recently the Service Bulletin printed a remark which may express the sentiment of many a field man. Those who aspire to an assignment in Washington are usually the exceptions. There is little occasion to ask why this apprehension exists if the root of contention is with W.O. Chiefs. (See Washington Information Digest, May 25, 1939)

Washington is a beautiful, magnificent city, abounding in amusements and entertainment. Its cultural offerings are numerous and educational facilities plentiful. Rents are high, but food prices are reasonable. The weather may be different from what the average forester is accustomed to, but the coal and electric fan bills are nominal. Hence apparent advantages appear to outnumber encumbrances.

The Graduate School of the Department of Agriculture offers numerous lectures dealing with administrative management, economics, philosophy, psychology, and other subjects. Enrollment in miscellaneous courses at the Graduate School on a term basis for which college credit may be received is optional. These and other advantages are brought to your attention by Division Chiefs or other personnel who are familiar with Departmental affairs.

The life in Washington is far afield from that on a forest or ranger district. If the assignment is temporary, a detail for a few months, you will not go far amiss if the advice of your superior is heeded. If it is a transfer, the door is open to all the avenues within limitations (financial and others) and let your conscience be your guide.

Nevertheless one will find unlimited opportunities from which to derive a great deal of pleasure and benefit, if the desire to take advantage of them is developed. Certain handicaps are obvious, some are merely mental, but each employee has within his reach the resources of a great city.

Why would _you_ shun Washington?

ARE WE FAIR TO THE CCC ENROLLEE?

By J. N. Jefferson, Project Superintendent, F-26, Va.

A young man follows the examples set by his older associates. You and I did it. If raised on a farm, we learned the life of a farmer; if raised in a mining town, we learned the life of a miner; if raised in a factory town, we learned to do and act as a factory workman.

Enrollees come to CCC camps with no knowledge of trades and in most cases with very limited educational advantages. Many are here because they did not care for school work and were unable to get jobs as they had no training in the trades. Many are from large families that were unable to give them the proper home life advantages. Then, when assigned to a CCC camp under an entirely new environment it is only natural for them to follow the examples set by and the training given by the Officers, Foremen, Project Superintendent, or other supervisory personnel.

The responsibility therefore of the supervisory personnel to the enrollee is great, as this is the age in his young manhood when character is being molded, work habits and practices formed, and in many cases life's vocation chosen. Likewise, the responsibility for selecting the right type of men to fill the supervisory positions is a great one.

What is the proper type of man for a position as Foreman in a CCC camp? Surely not just a good man who needs a job. He must be a man who naturally likes outdoor life and association with young men; who understands young men and is able to gain and hold their utmost respect. He should have a fair education, be neat in appearance, and have a pleasing manner. He must have a general knowledge of all work to be done by his camp, and should know one or more classes of work exceptionally well, and be able to perform these special jobs with his own hands. It is not possible for a Foreman to train an enrollee to operate and maintain a trail-builder if he cannot do it himself. This likewise applies to other classes of work. A man may be trained to use a tool by one experienced in the use of that tool until he may become more proficient than the trainer, but if he is not given proper instruction by one who actually knows, he will never perform efficient work. The Foreman therefore should possess above all other requirements, the ability to teach and train men.

Heads of departments, their assistants, Project Superintendents and Foremen should have less "paper" work, thus giving them more time for training and molding the lives of the enrollees under their supervision. When each supervisory position is filled with the proper type of man it will not be necessary to write regulations requiring formal job training and class work. This can best be done in an informal way as the majority of enrollees are not interested in formal classes.

In order to supervise and train his crew in correct and safe work practices no Foreman should be in charge of more than 25 men. He should also have the help of one or more older and experienced men, such as Project Assistants, if for no other reason than to aid in the teaching of safety on the job and to observe and correct the methods of the enrollees until they become fully safety-conscious.

In 1933 and 1934, many of us were given jobs in CCC camps because we needed employment. The heads of the CCC units did not then know just what types of men would be needed for the new camp jobs, and everyone was in a rush. Each member of the supervisory personnel should now take an honest and careful inventory of himself to see if he is actually fitted for the job that he is undertaking to fill, and if he is conscientious in doing it — fair to himself, his superiors and the enrollees under him — if he finds that he does not measure up to the high standard, he should immediately GET OUT. No Foreman stands still. He is either going backward or showing regular improvement. If he takes full advantage of the opportunities that are now offered for his advancement and has the natural qualifications to train young men, he should be RETAINED.

The heads of each Forest or Unit should have authority to employ the man who is believed to have the right qualifications for the job; also authority to discharge any employee found unsuited for his job.

With proper planning and supervision, we can and will have well trained enrollees who will turn out satisfactory and high quality work. Only thus can we give to the Government a fair return on its investment.

Are we as Foremen and Project Superintendents doing our part in guiding and training the enrollees of today who are to become our leading citizens of tomorrow?

REVIEWS OF RECENT BULLETINS

Annual Report of Southern Forest Experiment Station

That forestry is destined to play an important role in the economic development of the South is the keynote of the 18th annual report of the Southern Forest Experiment Station.

According to the Forest Survey figures on the South's forest resources, the report says, the forest inventory of the South shows that while the virgin old-growth timber stands are being rapidly depleted, second-growth stands have followed on most of the cut-over lands, despite indifference and abuse. These second-growth stands have developed rapidly and today form an important growing stock of timber, which if properly cared for and conservatively utilized, will appreciate both in volume and value in the years to come. However, they are now producing on the average only one-third the timber of which they are capable. The Survey data have served to focus the attention of the Nation on the extent, character, and value of this resource; they also indicate the necessity of applying forestry principles to its care and use if it is to serve as a sound basis for the greatly increased forest industries essential to the future prosperity of the South.

"Now, for the first time," the report says, "we can see the part that forests must play in the future of the South, but we also see that in every forest type and in every phase of forest industry there is immediate need for more specific knowledge of what to do and how to do it. The territory is a huge one, and within it the forestry problems to be solved are many, varied, and complex."

Research in forest management during 1938 included studies in silviculture, mensuration, regeneration, fire control, naval stores production, and forest regeneration work in Puerto Rico. Forest influences studies in progress at the Station last year included methods of checking run-off, fixation of road banks, and general problems of watershed improvement. Closely associated with this work were flood control surveys carried out in the basins of the Little Tallahatchie, Trinity, Concho, Pearl, Coosa, Yazoo, Ouachita, Sabine, Neches, Red, and Arkansas Rivers. Studies in forest economics included taxation studies and private forestry investigations. The former were undertaken to learn the relationship of tax delinquency and land utilization, while the latter sought to develop improved management methods for southern forests.

A recently completed inventory of forest lands and resources showed that nearly 60 percent of approximately 210 million acres of Southern land surveyed was productive forest land. Old growth stands were found on nearly 15 percent of the productive forest area; second-growth including reproduction on about 77 percent; and clear-cut forest land on only 8 percent. The report contains detailed information concerning the volume of material, the growth, the drain, and the net changes in the growing stock, also a summary of research plans for 1939.

- - - - - - -

B.P.I. Report on Blister Rust Control

The status of white pine blister rust control work on January 1, 1939, is outlined in a multilithed, illustrated report by the Division of Plant Disease Control of the Bureau of Entomology and Plant Quarantine.

Blister rust control areas in the United States, in need of protection by the eradication of Ribes, aggregate over 29 million acres. Almost 20 million of these acres have received initial protection and over 9 million acres are still unprotected. The cost of blister rust control activities from 1916 to June 30, 1939, totaled almost 30 million dollars, of which nearly 6 million dollars was expended by the Forest Service on National Forest lands from 1931 through June 30, 1939.

Less than a third of the white pine acreage in the National Forests is in the Eastern States. Initial work has been completed on the White Mountain National Forest and is well along in the Appalachian and Lake States regions.

The major part of white pine land on the National Forests is in the western white pine and sugar pine regions which constitute about half of the control area needing protection. Control work has been carried on with CCC and WPA labor, also with labor employed on regular funds. About three-fourths of the western white pine region lands and nearly one-third of the sugar pine region lands of the National Forests have received initial protection.

The report outlines the progress of control work in the Northeastern, Southern Appalachian, North Central, Western White Pine, and Sugar Pine Regions. It describes the areas covered in 1938, the regions now infected with blister rust, and concludes with a general discussion of the control problem.

- - - - - - -

Park, Parkway, and Recreational Area Study and Forest Resources Survey For Florida

Forest resources and recreation in Florida are the subjects of a recent report of the Florida State Planning Board issued in cooperation with the Forest Service and other State and Federal agencies. Since Florida is one State where it is generally conceded that trees and vacations are mainly responsible for income, it is natural that these should be studied in an effort to encourage the goose that lays the golden egg.

The report contains a summary of facts needed for planning a system of parks and recreational areas. Reports and publications of the Southern Forest Experiment Station are largely drawn upon for the material presented in the section on forest resources. It is the intention of the Planning Board and the Florida Forest and Park Service to continue this study so that an adequate program based on logical planning can be instigated.

SPECIAL GAME ROASTS

Mr. Hatton:

If a "major operation" is necessary - and most of our South Fork of the Flathead elk herd friends agree that it is - why not try to make that operation add something good as well as remove an evil? Perhaps the fallacy in my proposal is in agreement on what I call "good." Perhaps it is the difficulty of "enticing."

The major function of the National Forests is to grow crops -timber and grass are only two - for harvesting. We also grow wildlife, for satiating the senses of certain sentimental saps like myself, but primarily to be harvested by huntsmen. If the huntsmen can't do the job satisfactorily enough to prevent deterioration of the herd, then the Service should step in and complete the harvest, just as we do on experimental areas where we want exceptionally careful logging or range management.

With wildlife we wouldn't butcher the creatures, after enticing them into our sorting corrals. We would harvest the surplus after the hunting season by applying Scientific Selection. From the enticing corral a forked chute would lead one way to freedom and adequate forage, the other way to the converter. At the fork a scientific selector would close the proper gate to let the animal into the desired chute. At the end of the other fork - the converter end - a silencer on a rifle in the hands of an expert would spare the selected animal and all the others from any undue excitement of knowing what was happening.

If the resultant meat, teeth, and hides could not all be sold at auction, like timber to the highest bidder, to help pay the costs of game management, at least the choice teeth and hides should be salable. The meat could then be donated to public hospitals, poor farms, relief agencies, etc. Food from the forest for the Forgotten Man. A game roast in every Christmas basket.

(Signed) H. T. Gisborne.

(Mr. Gisborne, in charge of "Forest Protection," Northern Rocky Mountain Experiment Station refers to the "Barn Doors" article in the May 1 issue of the Service Bulletin. Certainly, he has outlined a worthy plan that would extend the conservation and human-use principle of a National Forest resource and it is hoped his idea may find favor in practical application. Who's next? J.H.H.)

ARTICLES BY MEMBERS OF FOREST SERVICE APPEARING IN OUTSIDE PUBLICATIONS

Compiled by Washington Office Library

ABELL, C. A. A method of estimating area in irregularly shaped and broken figures. table. Jour. Forestry 37(4): 344-345. Apr. 1939.

AUTEN, J. T. Soil profile characteristics of the pine-growing soil of the coastal plain region of Arkansas, by Lewis M. Turner. Arkansas agric. expt. sta. Bul. 361. 52p. figs. 1938. (Book review.) Jour. Forestry 37(4): 354-355. Apr. 1939.

BURKS, G. F., and WILSON, R. C. A vegetation inventory from aerial photographs. illus., diagrs. "Literature cited": p. 42. Photogrammetric Engin. 5(1): 30-42. Jan./Mar. 1939.

CONARRO, R. M. Fighting tomorrow's fires today. illus. Amer. Forests 45(4): 214, 216, 228. Apr. 1939.

CONNAUGHTON, C. A. Watershed management - more than mere protection. Jour. Forestry 37(4): 341-342. Apr. 1939.

CULLEY, MATT. Rodents or cattle? illus. Western Livestock Jour. 17(19): 12, 30-31. Mar. 28, 1938.

CUMMINGS, W. H. Diameter class gauges for small stems. Jour. Forestry 37(4): 349. Apr. 1939.

DAVIS, E. M. African pencil cedar. Studies of the properties of Juniperus procera (Hochst.) with particular reference to the adaption of the timber to the requirements of the pencil trade. Dept. Sci. and Indust. Research, Forest Prod. Research Rec. 24. 9p. plates, fig. 1938. (British library of information, N. Y.) (Book review). Jour. Forestry 37(4): 352. Apr. 1939.

DAY, B. B. Statistical tables for biological, agricultural and medical research, by R. A. Fisher and F. Yates. 90p. Oliver and Boyd, London and Edinburgh. 1938. (Book review). Jour. Forestry 37(4): 351-352. Apr. 1939.

GISBORNE, H. T. Hornby's principles of fire control planning. Jour. Forestry 37(4): 292-296. Apr. 1939.

GODWIN, D. P. The evolution of fire-fighting equipment. illus. Amer. Forests 45(4): 205-207, 235-237. Apr. 1939.

GUTHRIE, J. D. First awards of fire medal. Jour. Forestry 37(4): 340. Apr. 1939.

HARPER, V. L. Big trees, by Walter Fry and John R. White. 126p. illus. Stanford university press. Stanford university, Calif. 1938. (Book review). Jour. Forestry 37(4): 355. Apr. 1939.

HASTINGS, A. B. Appreciation of Austin Cary. photo. Jour. Forestry 37(4): 287. Apr. 1939.

HEADLEY, ROY. Who starts these fires. illus. Amer. Forests 45(4): 191-193. Apr. 1939.

KIRKLAND, B. P. The foundation of North American forest policy. Pulp and Paper Mag. Canada 40(3): 195-198, 208. Feb. 1939.

KOEHLER, ARTHUR. Gurjun, apitong, keruing, kapur, and allied timbers, by S. H. Clarke. Dept. Sci. and Indust. Research. Forest Prod. Research Rec. 16. (Timber ser. no. 5). 11p. map. 1937. (British library of information, New York). (Book review). Jour. Forestry 37(4): 353. Apr. 1939.

LEBARRON, R. K., and EYRE, F. H. The release of seeds from Jack pine cones. illus., diagrs. Jour. Forestry 37(4): 305-309. Apr. 1939.

MESAVAGE, CLEMENT. Frost damage to forests in northern New Jersey. Jour. Forestry 37(4): 345-346. Apr. 1939.

MINCKLER, L. S. Transpiration of trees and forests. "Literature cited": p. 339. Jour. Forestry 37(4): 336-339. Apr. 1939.

OSBORNE, J. G. A design for experiments in thinning forest areas. tables, diagrs. "Literature cited": p. 304. Jour. Forestry 37(4): 296-304. Apr. 1939.

REITZ, R. C. Influence of kiln temperatures on field germination and tree percent in northern white pine. Jour. Forestry 37(4): 343-344. Apr. 1939.

SILCOX, F. A. Men against the flames. illus. Amer. Forests 45(4): 194-198. Apr. 1939.

SPARHAWK, W. N. International yearbook of forestry statistics, 1933-1935. Vol. II-America, by Ernest Palmgren and Nestor Smal-Stocky (under the direction of Valentine Dore). 201p. International institute of agriculture, Rome. 1938. (Book review). Jour. Forestry 37(4): 354. Apr. 1939.

STOECKELER, J. H. Shelterbelt planting reduces wind erosion damage in western Oklahoma. illus. Jour. Amer. Soc. Agron. 30(11): 923-931. Nov. 1938.

STOTT, C. B., and RYAN, E. J. A permanent sample plot technique adapted to commercial timber stands. Jour. Forestry 37(4): 347-349. Apr. 1939.

TIEMANN, H. D. Lessons in wood technology. X. Identification of wood. illus. South. Lumberman 158(1993): 41-43. Apr. 15, 1939.

WIESLANDER, A. E., and SCHREIBER, B. O. Notes on the genus Arotostaphylos. illus. Madrono 5(1): 38-47. Jan. 1939.

WILSON, T. R. C. Machinery and equipment used for bending wood, by W. C. Stevens. Dept. Sci. and Indust. Research. Forest Prod. Research Rec. 25. 13p. plates, figs. 1938. (British library of information New York). (Book review). Jour. Forestry 37(4): 353. Apr. 1939.

WOOD, O. M. Relation of the root system of a sprouting stump in Quercus Montana Willd. to that of an undisturbed tree. tables, diagr. Jour. Forestry 37(4): 309-312. Apr. 1939.

THE EDITOR DISCOVERS

Wood is the dominant theme of the Finnish exhibit in the Hall of Nations at the World's Fair in New York, according to an item in the "New York Times." The exhibit, a "symphony in wood," contains displays of Finnish plywood and other forest products.

The entire wall to the left of the entrance is finished in three large panels of Finnish plywood, on which are mounted large photographs showing Finnish landscapes and the activities and industries of the republic. Around the main hall in cases are displayed Finnish ceramics, sports goods, wood and paper products and furniture. In the roof, a group of slowly moving airplane propellers of Finnish plywood serve as fans.

Above the balcony, one of the walls is built from cross-sections of the trunks of many trees of the Finnish forests. In this wall a moving picture screen is set, visible from all parts of the hall. Due to its novel construction, two films can be thrown upon it simultaneously.

The mezzanine also houses an exhibit of Finnish culture, centering around a small scale model of a Finnish community, complete with homes, fields, schools, and factories.

Hugo and Aino Aalto, husband and wife who are Finland's outstanding architects and decorators, designed the exhibit.

- - - - - - -

Supervisor Graham of the White Mountain National Forest reports that since last November the Forest Service film "Winter Wonderland" has been booked from his office to 63 commercial theaters in New England and New York, which have shown it to over 160,000 persons.

It has also been used by 19 clubs, high schools and colleges, including Cornell, Bard, St. Bonaventure, Mt. Holyoke and the Manchester Institute of Arts and Sciences.

Copies of the film were also widely used in the Region on the National Forests and by women's clubs. This demand for the film was stimulated by the Supervisor's office through the distribution of mimeographed flyers which advertised the film and contained information that prints could be secured from the Forest Supervisor's office.

- - - - - - -

The Civilian Conservation Corps will enroll approximately 60,000 new men in July as replacements for enrollees who have dropped out or who will leave the Corps on June 30, at the expiration of their terms of enrollment, according to a recent press release issued by the Director's office. Of the replacements to be enrolled in July, about 58,000 will be juniors and about 2,000 war veterans.

- - - - - - -

Mr. Paul D. Olejar, Director of Education for the West Virginia Conservation Commission, writes the Forest Service as follows in response to a request for sufficient copies of the "West Virginia Units in Conservation" for the Regional Forester in Atlanta to supply to all the State Foresters in his Region:

"Thank you for advertising the bulletin 'West Virginia Units in Conservation'. I appreciate the interest of the Regional Forester in Atlanta . . . Your surmise as to the brisk demand from other States is correct. It has been beyond our ability to supply in that many State officials after receiving a copy have asked for a dozen or a score for distribution to personnel."

The bulletin referred to is one in the development of which the Forest Service played a large part. It serves as an exhibit of what we hope to accomplish in cooperation with other States in encouraging conservation education in the public schools.

- - - - - - - -

Checks of the Valparaiso State Bank at Valparaiso, Florida, bear the following statement under the name of the bank, "In The Heart of the Choctawhatchee National Forest." Supervisor Albert advises that the bank is also planning to have this statement printed on their letterheads as soon as possible.

- - - - - - - -

Reports from the Regions as to the extent of public participation in the effort to promote the observance of Arbor Day this year, with special emphasis on its significance, show good results. High lights of some of the reports are:

Region Two:

"Practically all of the Forests in this Region participated in school programs, at most of which trees were planted. . . National Forest planting programs on various Forests were given considerable publicity, particularly on the Pike, Black Hills and Bighorn Forests. . . Newspapers and radio stations were furnished with information regarding Arbor Day and very good publicity was obtained. . . Forest Officers participated in Arbor Day programs at civic organizations, such as the Elks Club, Kiwanis Club, Boy Scouts, 4H Clubs, and Garden Clubs."

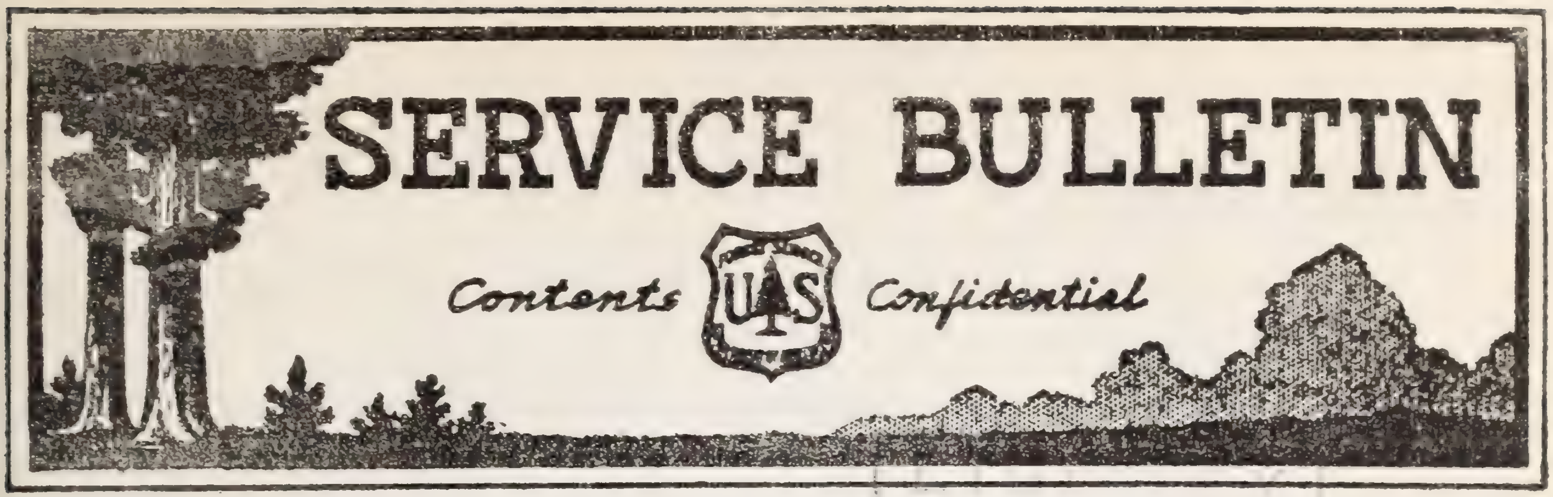
Region Five:

"Region 5 observed California Conservation, Bird and Arbor Day and the beginning of California Conservation Week with the following programs: (1) Twenty-four public school tree-planting ceremonies attended by 3,189 school children; (2) ten public tree-planting ceremonies for 376 people; (3) newspaper, magazine and radio announcements and reports preceding and following each of these events reached many thousands of people who were inspired by the Arbor Day observance although they may not have been able to attend tree planting ceremonies; (4) Dr. H. N. Wheeler addressed 200 members and guests of the Conservation Week Committee at the Yerba Buena Clubhouse on Treasure Island, site of the Golden Gate International Exposition.

"Assisting with participation in the Arbor Day observances were the California Conservation Week Committee, the California State Department of Education, the General Federation of Women's Clubs, public schools, clubs, organizations and public and private conservation agencies. . . News releases and other types of articles played a prominent role as did the use of radio. Editorials were quite numerous."

Region Six:

"We are glad to report that the Forests in this Region achieved excellent results in obtaining whole-hearted public participation in Arbor Day observance. . . 2,000 trees were planted on the Snoqualmie Forest by the boys of the Roosevelt High School, Seattle. Also, trees were planted by other schools along roadsides and at civic centers during Conservation Week and on April 22. . . On the Chelan Forest, two CCC camps planted 60,000 Douglas fir trees during the last two weeks of April and this fact was given publicity in connection with the celebration. In Oregon, in addition to arranging school programs, forest officers interested Grange members in the Arbor Day observance. Two interesting programs were held at the Bonneville Dam. One of these was at a W.P.A. Camp of 150 men when 300 trees were planted, and at the other, one of the officers in charge of the work at the dam arranged to have 600 trees planted. The press throughout Oregon and Washington responded generously in support of Arbor Day efforts and published editorials and news notes."



SERVICE BULLETIN

Contents Confidential

Vol. XXIII, NO. 14 Washington, D. C. July 10, 1939

☆ JUL 15 1939
U. S. Department of Agriculture

CRUSADERS ARE WAITING

By Roy Headley, Washington

Fire control and particularly fire prevention is a good "clean" subject. Logically, it is entitled to public support as intense and pervasive as that which other movements, some good, some bad, receive from time to time. Hundreds of Forest Service men and women have worked for many years to promote such public support. Despite disappointments, there has been the belief that in some way, some day, fire prevention would "catch on" and begin to roll under its own power, as only sound movements can, when like a snowball, they begin to roll downhill with increasing weight and momentum.

But although fire prevention is generally agreed to, passively at least, it hasn't seemed ever to reach the self-propelling and spontaneous growth stage. But maybe it is just entering that stage now. Maybe we are too close to our work to realize fully that we are passing from a stage of small results from relatively large effort to the stage of large results from relatively small effort. Maybe writers and publishers are more sensitive than we are to such a possible transition. The Stewart Holbrook article in the Saturday Evening Post suggests that they are.

Although we know about it well enough theoretically, we all probably fail fully to recognize one potential force which might start fire prevention rolling under its own power in a really effective way. Hundreds, or perhaps thousands, of individuals outside protection agencies, have heard the call to leadership in promoting really effective fire prevention. They believe in the importance of forest protection. They have the spirit and energy required by crusaders. Each one is a potential source of the influence required to attain traditional folk attitudes of respect for the forest, hatred of fire, and effective condemnation of carelessness with fire. It takes crusaders to move mountains of apathy and careless habits and these crusaders are waiting.

Distributed country-wide as they are, these individual crusaders when fully mobilized would do for fire prevention what individual crusaders do promptly in enlisting active support for a popular war.

All we need to do is to discover these potential crusaders and give them a little encouragement and help. They will supply incredible amounts of brains and hard unselfish work. They ask no pay in money.

The following unedited letter is an example. All we did in this instance was to answer a few letters and supply a little material and encouragement. But consider what the writer of the letter has done and is doing, on his own? Note the postscripts. They are characteristic expressions of the overflowing interest animating the volunteer leaders who stand ready to give devoted service to fire prevention - if we will only play our relatively small part. Will anyone say that we have more important work to do? Or that we haven't time to answer letters from such actually or potentially important leaders?

The match folder covers referred to in the letter were from the Ohio Match Company and carried the following message which, so far as we know, was drawn up by the author of the letter and his conservation committee of the Landscape Study Group: "A match has a head but no brains; supply the brains when you use its head. Forest fires injure timber, soil, water, wildlife and beauty. Think it over - 93% of the forest fires are man-caused. Timber means jobs. A forest fire's loss isn't for a season. Fires or forests? A match is no 'match' for a careless man."

642 Sinclair Ave. NE
Grand Rapids, Mich.
June 3, 1939

Dear Mr. Headley:

I haven't written sooner because I wanted to hear from the people, firms, etc., that I wrote to, so I could give you a more complete idea of our forest fire educational exhibit the third week in June.

The May exhibit was quite successful except that the local paper didn't take a picture of our window display at night showing the forest fire lamp burning, and they didn't publish our publicity until the last day of our original week allowed for our exhibit. The bank gave us an extra week without us asking for it. Then the matchfolders came three weeks late and didn't run our Garden Club name on them! The Company is having another 2500 printed with our Club name on them this time. Maybe they will give our Club the other case of folder matches. I took some pictures of the exhibit after work, but only one turned out - I am enclosing a picture of the exhibit and a sample of the matches.

I plan exhibits in two local downtown Banks in June, and hope to find a place where we can have a summer exhibit. In May I had a large poster made reading, "Timber Means Jobs," with red lettering, followed by other lettering in white, with burning stumps and trees on the bottom and sides. This and the "Match has a Head", etc. poster received a good deal of comment. I noticed that the lamp burning at night drew the attention of the passers-by.

The "Timber Means Jobs" poster I am using again this month with typewritten sheets giving the industries using wood and the employment in these wood-using firms. A total of 2,181,000 persons are dependent on the forests for their work. I hope to list the various woods (trees) and what they are used for. (I think this will be very interesting, since I found out many things I didn't know wood was used for myself).

Another poster I am having made (haven't the time to do this myself, since I have only evenings and Sunday off, and writing letters, answering them, and planning the exhibits, takes up most of my time) - reads, "Tourists and Sportsmen, save our Trees! No fires in our forests allow; What'll the Future have, if we don't protect them Now?"

I have a magazine picture in which are ten articles made from wood. A typewritten question above the picture will read - "Can you name the ten articles made from wood in this picture? The answer will be found elsewhere in the exhibit." I have written to lumber dealers, etc., asking them to include some forest fire prevention advertising with their regular advertising. I have written many letters to wood-using industries asking for samples of their products; I haven't received any yet.

Next year I hope we can have an essay contest in the schools and prepare a school play based on "Wood and its Uses". We have been offered the loan of a 16 mm. sound film "Men and Forests" by the Weyerhaeuser Sales Company of St. Paul, Minnesota. The local theatres use only 35 mm. sound projectors, so we can't use the film.

The City Fire Department recently had some small but effective exhibits on house fires in various parts of the city. We have secured permission to use two of their items - a tin cigarette dunking cup and a sign reading, "Chaperon your cigarettes. Don't let them go out alone".

I have written to the local broadcasting station WOOD and asked them to remind the tourists, etc., of the dangers of forest fires, etc. They ask for 35-100 words of copy, and promise to broadcast this in their available time, especially before the week-ends. I have asked the State Conservation Dept. to send the Radio Station the copy since someone there writes radio copy for this Department, and has more experience and facts than I have. I hope to write to the Michigan Network and the two National Broadcasting Companies on this same matter.

The "Match has a Head" etc. poster, will be sent to you in a day or two.

Sincerely yours,

/s/ Donald Fischer
Secy-Treas., Chairman of Conservation Committee
of Landscape Study Group

P.S. Is it permissible to write or print something on the outside of letters, mine or anybody's, on the order of your "Prevent Forest Fires - It Pays!" on your envelopes? I'd like to use this idea on the Club's envelopes and others that I write.

I have received a large assortment of very interesting posters, pamphlets, etc. from the State Conservation Department, who is interested in our campaign and our match folders. The Education Division of this Department has asked for an article about our exhibit, so it can send publicity to all the Michigan papers!

SIMS AND RECREATION

By Robert Marshall, Washington

Sims, in his article in the May 15 Bulletin, criticizes the Forest Service for "our attempt to give the people what they want." I should hope we would consider what the people want. Recreation means nothing if it is not what people want. The most we can hope to do is to show people the new joys which untried forms of recreation may hold for them. We cannot successfully jam down their throats what they do not want.

Even if this were not our policy, we would still have to develop the picnic grounds and bathhouses and bathing beaches which Sims dislikes because we are swamped by such use. Without picnic grounds people build fires at random along the roads with great attendant fire hazard and great damage to scenic values. Without properly developed bathing beaches the danger from drowning is greatly increased. The construction of bathhouses is not very costly, but it does provide the reasonable convenience for which bathers are grateful and it saves many a bashful visitor the discomfort of thorny thickets for disrobing operations.

Sims seems to resent the fact that picnic grounds and campgrounds are "pretty" — in other words, that we have gone to some pains to make them harmonize with the natural environment. This policy was approved by the Chief after unanimous endorsement by the different regions. The philosophy behind this policy is that visitors to the forest desire as much as possible the forest atmosphere. If, for a relatively small additional outlay, it is possible to build well-laid-out and attractive campgrounds which seem to merge into the natural environment rather than glaring, ugly ones such as we used to build in many cases, then I can see no basis for objecting to the former.

I do not know who said "our trails and portages go practically untrod year after year." Thirty thousand people used National Forest back country in the High Sierras in 1937. I met 85 people there in a five-day trip into the wilderness. On a trip of similar length in 1938 into the San Juan Wilderness I met 37 people. On a 24-mile walk across the San Gorgonio Wild Area I met 37 people in one day. Many people take these back country trips for a relatively small expenditure.

I am not sure just what Sims wants us to do in the line of "educating folks on the pleasures and values to be derived from the more extensive activities." We surely should not try to high-pressure people to the forest for recreation as we do to the circus or the World's Fair. What we really need is more leadership at our campgrounds and picnic grounds and organization camps. Practically all of us want such leadership, but so far Congress has not given us the funds. If Sims can show us the method of convincing Congress that we need such leaders, we will be eternally grateful to him.

Sims does not seem to realize that people from the city, where the majority of those who visit National Forests reside, or even from rural areas, when they first come to the forest, don't know in a large number of cases even how to set up a tent or build a fire. Picnic grounds, campgrounds, and organization camps are a first step in learning woodcraft. When people know how to use such areas, then a certain fraction of them will be interested in going further afield until eventually some of them will become wilderness travelers. The facilities which Sims does not like are necessary stepping stones in making people competent to go in for the more robust recreation to which he refers.

In his third last paragraph, Sims mentions four specific things we should provide. Number one is "two and three family picnic spots a hundred yards off the forest highway." Actually we have more of these than of the larger picnic grounds and campgrounds. However, it is a great deal more expensive per person served to build smaller campgrounds. Consequently, in areas where we have heavy use and limited funds we are compelled to go in for the larger campgrounds even though most of us prefer smaller ones.

Second, Sims wants "round-trip graded trails from one to ten miles long with starting point at a parking space." I agree with this idea heartily. On some forests such facilities are well developed, but on others they are sorely needed. Of course this has to be taken in stride along with other developments requiring funds.

Third, Sims wants "coordinated trail systems for longer hikes with shelters." We have lots of coordinated trail systems for longer hikes but very few such shelters. Personally, while I think we should experiment with them I doubt whether we ought to have very many. We cannot possibly have enough shelters to make it safe for a person to go into the woods and count on finding one vacant. Vandalism among shelters in many sections of the country also is a serious drawback. Finally, I believe the majority of the people when they get back from roads prefer to do their own camping and not depend on pre-arranged shelters.

Fourth, Sims wants "developed and marked canoe trips." So far as I know the only Forest Service country physiographically suited for canoe trips of much length, not counting those merely involved in boating down river, are in northern Minnesota. Here there are ample canoe routes where several thousands of people travel each year, fortunately not developed except for portages which are clearly marked. I don't know how we can develop canoe trips where we don't have chains of lakes and streams.

Sims begins and ends on a criticism of foresters because they do not "go in for wild land recreation themselves." Merely as one example of foresters, it might be interesting to note that in the ten years I have been in the government service I have never spent more than two consecutive days of annual leave which were not devoted to forest, desert, or tundra recreation. That's no credit to me but simply what I like to do. For those who do not care for such outdoor activities but want to spend their vacation playing bridge or golf or going to the World's Fair, I would say that vacation emphatically is the time to do exactly what they like.

PLANTING EYED EGGS IN WILDERNESS WATERS

By David J. Maclay, Region 1

The eggs referred to are fish eggs, of course. More specifically, they are cutthroat trout eggs from the State Fish Hatchery on the west shore of Flathead Lake near Somers, Montana. The eggs are designated as "eyed" because a black spot appearing through their pliant transparent shells is the "eye spot" of a trout in an embryonic stage of development. The larger and darker the spot in the egg, the more advanced are the life processes involved.

Up to the time of my first experience transporting trout fry in milk cans to trout waters in the far back country of one of the National Forests in this region, my interest in eyed eggs was purely academic. Immediately thereafter and ever since, the possibilities of their utility for stocking purposes in the wild roadless areas still common to the Northern Rockies appeared to me manifold - particularly in view of the fact that the eggs in late "eyed" stages will stand reasonably rough moving without serious injury.

Personal experience quickly convinced me that the transportation of fry or fingerling to back-country lakes and streams, barren of fish life because of natural barriers, was neither practical nor financially feasible. * * *

By contrast with the almost insurmountable physical difficulties encountered in the transportation of fry and fingerling to back-country waters, the moving of eyed eggs is a simple matter. The main objection to their use in fish propagation work has been the relatively small percent of hatch and survival. In past years, however, the method generally used in planting has been to place the eggs directly on the stream bed, covering them with gravel to stimulate natural spawning conditions. Due to the fact that the eggs became covered with silt and died or were destroyed by other fish species, birds or insect larvae, this practice met with very mediocre success.

Early in June of last year the need was felt for stocking various areas on the Flathead Forest which were inaccessible except by trail. Because of the wild and remote location of the waters suggested for planting, however, the long hauls and expense involved made the proposed project obviously impractical. In view of these circumstances it was decided to make some experimental plantings with eyed eggs.

Accordingly, several cases specially designed for holding the eggs and mounting on pack saddles were constructed. These cases were 20 inches long, 18 inches high, and 12 inches wide. They were insulated with a 3-inch packing of Zonolite and when filled with trays held approximately 50,000 eggs. The shipping weight of each case - filled with eggs and ice - was about 60 pounds. Ice was placed at the top of the case in such a way that melting water seeped down on the trays to keep them moist.

The eggs were provided by the State Fish Hatchery at Somers, and at the time they were secured, they had been incubated at the hatchery about 20 days. When obtained they were within from four to ten days of hatching. By packing the eggs in ice at this stage, it is possible to retard their development and thus make it possible to move them without any appreciable loss. The temperature at which they must be held ranges from 34 to 38 degrees F. Eggs nearing the time of hatch are more tender than those of earlier age, but they withstand packing several deep in trays and can be packed over the average trail without much injury. In one instance eyed eggs were carried for four days with very little loss. A large part of these eggs hatched as soon as they were placed in the water.

In experimental plants made on four ranger districts of the Flathead Forest last summer a total of 420,800 eggs were distributed. The longest pack-trip haul of eyed eggs was about 40 miles; the average trail haul on all the plants was between 15 and 20 miles.

Instead of placing the eggs directly on the stream bottom to stimulate natural spawning conditions, the eggs were planted by placing them in floating trays. These trays were 14 inches square and three inches deep with sides and top made of wood and a bottom of screen with an oblong mesh which held the eggs but allowed the fish to drop through after hatching. Each tray was loaded with from 5,000 to 10,000 eggs depending on the plant desired, and was then floated out and anchored over moving water. Movement in the water is necessary to keep the eggs stirred up so that fungus attacking dead eggs will not infect the live ones. After hatching, the fish drop through the wire mesh bottom of the tray and burrow in the gravel of the bottom of the stream just as they do under natural hatching conditions.

All in all from my observations I would say that the results obtained from these experimental plants have been most gratifying and encouraging. On several of the plants given especially careful check, a hatch as high as 97 percent was found and, in general, I believe the average hatch could be placed at about 75 percent - although additional checks on other plants should be made to substantiate this figure. For planting remote wilderness lakes and streams, it appears that this method of fish propagation is particularly well adapted and has excellent possibilities. The relative ease with which eyed eggs can be transported over long mountain trails in contrast to the extreme difficulties encountered on long back-country hauls with fry or fingerling, is certainly a decided advantage in their favor. (From "Field Notes on Wildlife", Northern Rocky Mountain Region.)

AN ADVENTURE IN COOPERATION

By H. R. Kylie, Washington

On Wednesday, May 31, a CCC project superintendent, a company commander, an educational adviser, and a technical service training assistant, conducted -- before a group of administrative heads of the CCC and cooperating agencies -- the last of sixteen meetings and demonstrations as a camp educational committee. Previous meetings, held in the camps, have been attended by every camp educational committee in the Third Corps Area, comprising 128 camps.

The program, which has been enthusiastically received by all who have seen it, consisted of (1) an explanation by the members of the camp educational committee of how they worked together to draw up an educational and training plan based on the camp and project work, (2) a meeting (unexpurgated) of the camp educational committee, and (3) a series of three teaching demonstrations each of which was followed by a critique and group discussion.

Made possible by the cooperation of the Departments of Agriculture and Interior with the Commanding General of the Third Corps Area, the demonstrations presented and explained in playlet form existing regulations regarding the functions of the camp committee and the formulation of the camp educational and training program. As attested to by the various audiences the playlet or demonstration was more immediately effective than are mimeographed instructions.

In preparing the material the Forest Service, Division of Enrollee Training, selected a Maryland State camp in which to make a project survey and analysis. In the Forest Service CCC Handbook such surveys and analyses are required to be made by all Forest Service project superintendents, as bases for their part of the camp program. The project survey was underway when the CCC officer of the Third Corps Area suggested a unified attempt to stimulate the entire program. He assigned a company commander and an educational adviser to the camp to survey the training possibilities in the Army jobs, and to aid in developing the sample program based upon the training and educational possibilities inherent in CCC camp life and work and upon the instructors available in the camp personnel.

The program was presented in the camps by Project Superintendent S. G. Hile, Camp S-67, Renova, Pa.; Training Assistant L. H. Morrow, Camp S-111, Blain, Pennsylvania; Capt. A. T. Wilson, Camp F-2, Mount Solon, Virginia; and District Educational Adviser R. Benton, Southern District, Richmond, Virginia.

("The CCC training demonstration on May 31 was absolutely the best training demonstration I have ever seen in Washington." - Peter Keplinger)

AN OLD FRIEND IS GONE

By Harry Irion, Washington

George G. Anderson died at Emergency Hospital in Washington Sunday afternoon, June 25, after a short illness following a major operation. First appointed in January of 1901, he held a number of important positions in the Forest Service until his retirement in 1930, at which time he was Personnel Officer. For a number of years he has been President of the Government Employees' Mutual Relief Association of which he was a charter member.

Mr. Anderson was a real and rare personality whose every thought and action was completely disciplined. Tall and wiry, he remained unstooped to the end of nearly fourscore years. His natural gifts were markedly augmented by wide reading, personal contacts and keen observation, and during his years of retirement he found new interests which brought him much happiness and contentment.

Blessed with a fine sense of humor and broad interests his conversation was a thing of delight to his friends. From his rich endowment in learning and experience he drew the power for sound and discriminating judgment in meeting the problems with which he had to deal. While in the Service his responsibility was heavy, but it was accepted courageously and discharged with acute discernment which won and kept the respect of his associates.

His long tenure in the Forest Service gave him a wide circle of acquaintances, and those who knew him intimately always found him courteous, kindly, and an able counselor. He, indeed, was a remarkable man, whose life was ever a restless pilgrimage in service that seemingly was never satisfied. No shadow could dim his unconquerable spirit and until the last he maintained that extraordinary force of mind and character which we so much admired. Truly his life was a triumph and will always remain to us a precious and happy memory!

AMERICAN YOUTH COMMISSION COMPLETES CCC STUDY

By Jno. D. Guthrie, Washington

This study has been under way for the past several years by Kenneth Holland, of the American Youth Commission, and ex-Liaison Officer, 1st Corps Area (Boston). It is understood that the study is to be put out in book form; in the meantime some of its conclusions have been made public.

The final report will await the results of an implementation project designed to improve the educational opportunities in the CCC, and also in selected resident centers of the National Youth Administration. The implementation projects or programs will be carried on in 30 locations under the Supervision of Mr. Holland

The original CCC study embraced a battery of tests which covered almost 10,000 enrollees in 250 selected camps in all 9 Corps Areas. These tests were given when the men entered the camps, 6 months later, and then a year later. In addition, case studies were made of 220 enrollees, half of them after they had left the Corps.

Some interesting facts were found by this study, for example -- average age of CCC youth is 19, though ⅔ were younger when entering. Younger enrollees tended to remain longer in camp than older ones. Enrollees came from families of relatively low economic level. On the Barr Scale, 39 percent of fathers of enrollees were engaged in occupations below the level of letter carrier, as compared to a cross section of high school pupils with 26 percent below this level. Thirty seven percent of CCC boys came from broken homes, 13 percent because of divorce, and 24 percent because of death. Twenty percent of the mothers and 21 percent of the fathers were of foreign birth. Average size of an enrollee family is 5.5 children, and over 50 percent of the cases came from families of three or more children younger than the enrollee. This indicates, Holland thinks, that there is apt to be for some time a need for programs like the CCC and NYA. Average school grade is 8.7, but it required 11 years to reach this grade, which fact Holland holds might indicate "that the enrollees have not been well adjusted to our school programs"; it might also indicate that something is wrong with our systems of teaching, or that the average enrollee is below the average intellectual level. More than one-half had worked for less than one month before coming into the Corps.

CCC youths made progress in the camps in reading, arithmetic, job information, health, safety, first-aid, and in conservation of natural resources. Knowledge of current affairs decreased. Both the tests and the case studies showed improvement in morale of enrollees.

Holland recommends that the CCC be continued as long as there are young men who will profit from life in the Corps and there remain conservation projects to be done. He also suggests the coordination of CCC and other public agencies designed to help young people and that the Corps "become a part of a national plan for the care and education of American youth."

Holland was assisted in his study by Earl Iffert, assistant director, and an advisory committee made up of Dr. Ralph W. Tyler, University of Chicago; Dr. H. H. Remmers, Purdue; Dr. F. T. Spaulding, Harvard, and Dr. M. R. Trabue, Penn. State.

ARTICLES BY MEMBERS OF FOREST SERVICE APPEARING IN OUTSIDE PUBLICATIONS

Compiled by Washington Office Library

BROWNE, F. L. Painting your house. illus. Amer. Forests 45(5): 261-263. May 1939.

CAMPBELL, R. S. Poisonous plants of the United States, by Walter Conrad Muenscher. 266p. illus. The Macmillan company, New York. 1939. (Book review). Jour. Forestry 37 (5): 425. May 1939.

CHIDESTER, G. H., and McGOVERN, J. N. Effect of the addition of sodium salts in pulping shortleaf pine with neutral sodium sulphite, liquor. tables. "Literature cited": p. 32. Paper Trade Jour. 108(6): 31-32. Feb. 9, 1939.

DAVIS, K. P., and KLEHM, K. A. Controlled burning in the western white pine type. illus., diagrs. Jour. Forestry 37(5): 399-407. May 1939.

GUTHRIE, J. D. A new American fire medal. illus. Forest Leaves 19(2): 8. Apr. 1939.

HATTON, J. H. The Ranger's corner. Punching buffalo. Amer. Forests 45(6): 328. June 1939.

Hicks, W. T. Economic aspects of cooperative marketing of forest products. Jour. Forestry 37(5): 392-394. May 1939.

ISAAC, L. A.. A sign that tells a story. Jour. Forestry 37(5): 423. May 1939.

JOHNSON, F. R. The National forests and the Mountain club. illus. Trail and Timberline 245: 55-66. May 1939.

LENTZ, G. H. Cutting and selling pine pulpwood, by C. H. Schaeffer. 39p. illus. South Carolina, Commission of forestry. Columbia, S. C. 1938. (Book review). Jour. Forestry 37(5): 429-430. May 1939.

MAKI, T. E. To hold this soil, by Russell Lord. U. S. Dept. agric. Misc. Pub. 321. 123p. illus. Gov't. printing office, Washington, D. C. 1938; and Behold our land, by Russell Lord. 310p. illus. Houghton Miffin company, Boston. 1938. (Book reviews). Jour. Forestry 37(5): 430-432. May 1939.

MOLLENHAUER, WILLIAM Jr. Table mountain pine - squirrel food or timber tree. illus. Jour. Forestry 37(5): 420-421. May 1939.

PEARSON, G. A. Mortality in cutover stands of ponderosa pine. tables, diagrs. Jour. Forestry 37(5): 383-387. May 1939.

RAPRAEGER, E. F. Range of log prices -- 1938. Northern Rocky mountain regions. tables. Timberman 40(7): 28. May 1939.

RITTER, G. J. Crystal arrangement and swelling properties of fibers and rays cells in basswood holocellulose. illus., plate. "Literature cited": p. 37. Paper Trade Jour. 108(6): 33-37. Feb. 9, 1939.

RUDOLF, P. O. Why forest plantations fail. table. "Literature cited": p. 382-383. Jour. Forestry 37(5): 377-383. May 1939.

SCHREINER, E. J. The black poplars and their hybrids cultivated in Britain, by G. S. Cansdale and members of the staff of the Imperial forestry institute. 52p. plate. University press, Oxford. 1938. (Book review). Jour. Forestry 37(5): 426-427. May 1939.

SHIRLEY, H. L. Tree growth, by Daniel T. MacDougal. 240 p. illus. Chronica Botanica co., Leiden (Holland) and G. E. Stechert, New York. 1938. (Book review). Jour. Forestry 37(5): 426-427. May 1939.

SNOW, A. G., Jr. Plant growth substances. Their chemistry and applications, with special reference to synthetics, by Hugh Nicol. 108p. illus. Leonard Hill, Ltd., London and chemical publishing company, New York, inc. 1938. (Book review). Jour. Forestry 37(5): 427-428. May 1939.

SPARHAWK, W. N. Der Wald (The forest), by Richard B. Hilf. 290 p. illus. Akademische Verlagsgesellschaft Athenaion, Potsdam. 1938. (Book review). Jour. Forestry 37(5): 425-426. May 1939.

STUART, ALICE. Accessibility of National forests for recreation. tables, map. Jour. Forestry 37(5): 408-412. May 1939.

TIEMANN, H. D. Lessons in wood technology. XI. Angiosperms: woods with pores of uniform size. diagrs. South. Lumberman 158(1995): 41-43. May 15, 1939.

TURBERVILLE, H. W., and HOUGH, A. F. Errors in age counts of suppressed trees. Jour. Forestry 37(5): 417-418. May 1939.

WOOD, O. M. The use of "Gooseneck" and six's thermometers for measuring soil temperature. illus. Jour. Forestry 37(5): 421-423. May 1939.

SERVICE BULLETIN

Contents Confidential

Vol. XXIII No. 15 Washington, D. C. July 24, 1939

LIBRARY
RECEIVED
★ AUG 5 1939 ★
U. S. Department of Agriculture

PROPOSED SELF-LIQUIDATING FORESTRY PROJECTS

The following program of self-liquidating forestry projects which might meet the terms of President Roosevelt's new financial program has been submitted by the Forest Service to the Secretary's Office, in response to a request from Under Secretary M. L. Wilson:

Project No. 1 - Federal Land and Timber Acquisition

The first project recommended is the purchase by the Federal Government of 10 million acres of forest land for the National Forests.

Purchase would be confined to owners who would accept low interest bearing bonds in payment in lieu of cash. It would be confined to areas with either mature timber or well advanced second growth which could be sold in time to retire the bonds before maturity, set at 40 years. Most of the bonds could be retired in a much shorter period.

This plan will permit the transfer from private to public ownership of many key areas which control much lrger areas. It would transfer the whip hand in forest management on much larger areas than those actually purchased and prevent the destruction of the forest.

Because of timber values the lands would cost about $20 per acre, or a total of 200 million dollars. Because of use of bonds no appropriation would be necessary. New legislation would be required to authorize the use of such bonds.

The residual value of the land and timber purchased, under good forest management, should be sufficient to equal all cost of administration, protection, and the contribution to the States in lieu of taxation.

Beneficial Results

1. It would build up a forest property which would continue to produce direct revenue to the Federal Government in an amount that would yield net profits to the government in direct receipts both during and after the end of 40 years under the plan outlined above. It is an investment that does not depreciate.

2. It would constitute an important step in stopping the destruction of the forests and keeping the forest land productive. It would thereby insure a steady flow of raw material and stabilize dependent employment, communities, and industries.

3. Returns from the 10,000,000 acres should insure a continued tax revenue of approximately $4,000,000 annually to the Federal Government from the contribution to national income under existing tax structure.

Under present private ownership operating on a liquidation formula the usual practice is to denude the area of all merchantable material. This narrows the tax base. Dependent industries cease operation and labor is thrown out of employment. The result is a lowering of tax returns from a lower contribution to national income. In addition, large sums of relief money must be diverted to that area. Numerous examples of such cutover counties exist where the share of State primary school funds is much larger than is returned to the State in taxes.

While the 35 percent contribution to the States and counties would be the largest cost item after the bond issue is retired, the fact should not be lost sight of that this fund aids in supporting local governments and minimizes relief burdens in such areas.

4. It would enable the Forest Service to consolidate and control cutting on private lands now intermingled with National Forests. This would allow a quicker stabilization of industries and communities and serve the full purpose of the original creation of National Forests.

5. With the limited funds at its disposal for land purchases heretofore, the Forest Service has acquired a large proportion of cutover, wrecked forests which require years and heavy financial investments to put back into full productivity. A purchase of this type would allow a reversal of this policy and permit acquisition of forests before the private owners have high-graded or destroyed them, thus obviating the likely necessity of future high costs to the Federal Government in restoring them to production. It would allow National Forest administration to become a "going" business concern at a much earlier period than under present conditions.

6. Total costs of administration of National Forests per acre would be reduced by consolidation of existing forests and purchase units.

7. To the extent that costs of administration and investments are necessary, it would provide work in rural forest communities which is needed at the present time.

8. An additional justification for the expenditure necessary from the regular budget for administration of the lands is based on the many public benefits which will be obtained from the purchased areas, such as - recreation, wildlife, and watershed protection.

Project No. 2 - Forest Credits

The plan provides for a loan of $40,000,000 for the creation of a Forest Credit Division in the Farm Credit Administration for supervision of a Forest Credit Bank. Loans will be made to timber operators only where satisfactory forest practice is assured. The Forest Service will formulate forestry practice requirements and check on compliance. The program should afford one means of stopping the destruction of forests and keeping them productive with public controls which will accomplish this purpose.

A fund of $40,000,000 loaned by the Federal Government which will be wholly recovered, without interest, by the end of a 20-year period. It is estimated that the credit requirements of the next few years will be about $200,000,000.

The remainder of these requirements would be met by the sale of low interest bearing bonds by the Forest Credit Bank. There will be an additional annual non-recoverable cost of $100,000 to the Federal Government for administration expenses.

Long term credits of 5 to 30 years, and intermediate credits of 1 to 5 years, will be made only where satisfactory forest practice is assured.

Commercial banks can well handle the customary short-term credits.

The Forest Credit Bank will make sound business lans only, at not to eceed 30 percent of real estate valuation for long-term loans, at interest rates of 4-1/2 to 5 percent which will absorb borrowing and administration costs and risks.

New legislation would be required.

Beneficial Results

Federally sponsored forest credits are needed and can be made an effective instrument in forest conservation because:

1. Forest credits from private sources have been predicated almost entirely on banking formulae based on liquidation.

2. Credits in large volume on a radically different basis than present commercial practices are needed to stop liquidation and build up growing stock for continued higher timber production. These funds are needed by the private operator to revamp harvesting and utilization facilities to sustained yield management and to consolidate holdings for efficient forest practice in what is now a hopelessly complex ownership pattern.

3. It will enable owners who want to practice forestry to buy out owners who want to liquidate.

4. Forest land is the only major form of land use for which suitable credit facilities are not supplied.

5. Only the Federal Government can organize and carry an institution which can pool risks, etc., for the entire country.

6. Only positive assurance of public control of forest management as a quid pro quo for loans can justify the Federal Government in sponsoring such a credit organization.

Project No. 3 - State Forest Acquisition

Five million dollars is recommended for the acquisition of State Forests.

The Fulmer Act authorizes the Federal Government to spend 5 million dollars for the acquisition of private lands for State Forests. These expenditures would in effect be loans because the purchase price would be repaid by one-half of the gross receipts.

The entire cost of purchase without interest would be repaid in about 40 years, most of it probably in much less time.

Under the law purchases would be approved by the National Forest Reservation Commission, and management would have to meet the requirements of the Secretary of Agriculture.

All costs other than those for initial purchase would be borne by the States.

Beneficial Results

1. Much the same benefits will result from the State forest land purchase program as have been stated under the proposed Federal acquisitional plan.

2. The National acquisition problem is large and the combined facilities of both the State and Federal Governments are necessary for its solution.

3. Up to the present time the greater part of the burden has been carried by the Federal Government. This aid would stimulate the State acquisition of forest lands.

RESERVE OFFICERS VISIT THE CARIBBEAN NATIONAL FOREST

By Jno. D. Guthrie, Washington

The Caribbean National Forest and the CCC in Puerto Rico sold themselves on June 22 to some 400 Reserve Officers and their families from the United States. The Reserve Officers Association was holding its annual convention in San Juan and spent a day as guests of the National Forest. The CCC camp at La Mina Recreation Area staged a native pig roast dinner for some 700 people that day. The visitors rode over the CCC-built mountain road toward El Yunque (3,496 feet elevation), passed through the very attractive Spanish portal into the National Forest, swam in the splendid swimming pool, saw some of the public recreation improvements in shelters, restaurants, overnight cabins, etc., all built by the Puerto Rican CCC since 1933.

The impressive Forest portal was decorated with palm branches, bore a sign welcoming the Reserve Officers Association to the Forest, the CCC buildings at La Mina were decorated, parking was taken care of, and courtesy and advance planning were everywhere evident. All this could not help but impress itself on the several hundred Reserve Officers and their wives who came on the good ship "Iroquois" from 44 different State departments, including Alaska, Hawaii, and Puerto Rico itself, to the 17th Annual Convention of the Reserve Officers Association in San Juan.

An excellent native dinner was served at La Mina of barbecued pig and chicken, rice, frijoles, boiled plantain, tropical fruit salad, guava paste and cheese, and excellent Puerto Rican coffee. Although over 200 guests in excess of the number planned for showed up, no one went hungry and everyone was helped most generously. A camp orchestra played native music during the dinner, there was rhumba dancing later, and altogether this National Forest picnic was admitted to have been the high light of the 3-day stay of the Reserve Officers in Puerto Rico.

The drive in large busses from San Juan up the mountain to the La Mina Area was through beautiful and interesting country. Cane fields, banana and cocoanut trees bordered a road brightened by scarlet hibiscus, purple bougainvillea, and the striking "flamboyant" trees. Steep hillside farms were seen and many interesting phases of Puerto Rican rural life as one ascended to the portals of the Caribbean National Forest with its dense tropical verdure, then mahogany and Spanish cedar plantations, until the La Mina area was reached.

Forest Supervisor E. W. Hadley and his staff had planned the affair well, the ROA welcoming signs, the CCC traffic and parking patrols, the copy of the Caribbean Forest folder provided each Reserve Officer, the well designed and substantially built structures, the decorated CCC mess hall, the fine, abundant, and distinctive dinner, the uniform efficiency and courtesy of the CCC enrollees serving the big crowd,—all made a very good impression on these Reserve Officers from all over the United States, as evidenced by a resolution of appreciation later passed by the Association. They know now that there is a National Forest in Puerto Rico, administered by the U. S. Forest Service, and that the CCC is likewise doing good work on the Island.

MORE ON GRADUATE STUDY

By Kenneth P. Davis, Northern Rocky Mountain Forest and Range Experiment Station

Mr. Keplinger in his March 6 article in the Service Bulletin on the new graduate study course organized at Ann Arbor last winter reported on a significant development in post-employment educational training. But this and other more or less publicized training plans, such as the present educational details to the Washington Office, leave out of account an even more important recent development. This is greatly increased participation, by both research and administrative men, in graduate study entirely independent of Forest Service and Departmental instigation and supervision.

To me, the most practical thing the Government ever did to encourage post-employment educational training of field men -- the Washington Office is well provided for -- was to permit accumulation of annual leave. No one who has not tried to finance graduate study, especially with a family, can appreciate what a difference it makes. With the old 15-day leave and no accumulation, the pay check was chopped off right behind the man taking educational leave. With 60-day accumulation, plus one or two current year's leave, the financial shock is cushioned, oh so much! One semester of graduate work can almost be covered by leave and even a full school year is not nearly so difficult to finance. Leave accumulation puts graduate study within the reach of most of us, with or without families.

The effects of this change in leave policy are already evident. During the last few years, an increasing number of men have quietly slipped away to round out their educational background by serious and concentrated graduate study. Requiring initiative, a certain fixity of purpose, mental energy, and usually considerable personal sacrifice, post-employment graduate study abundantly qualifies as a foundation builder of the finest sort in developing broad and truly educated foresters.

I was privileged to see individual comments submitted by those taking the study course at Ann Arbor last winter. Outstanding among these comments was the common recognition of the value and stimulating effect of the outside viewpoint. All agreed they learned a lot about organization and administration, the subject of the course, and came to a better realization that there was much more to it than as exemplified by Forest Service policies and practices. And this was a short course of only a month by no means equaling independent and concentrated study of a semester or a full academic year. Graduate training is one excellent source of fuel for that "self-starting engine" that Major Kelley recently listed as an important personal qualification for executive work in the Forest Service.

SOME OBSERVATIONS ON THE FORESTS OF THE HAWAIIAN ISLANDS

By H. N. Wheeler, Washington

The forests of the Hawaiian Islands are of the greatest importance to the Territory of Hawaii and to the United States as a whole. The territorial forests contain 1,057,000 acres of 4,118,000 acres comprising the land area of the Islands. The forestry department is very efficient and these forest areas are being protected from fire and other enemies. Sheep, goats, cattle and pigs, running wild for 100 years or more, have done much damage to young growth. These animals are being eliminated by the forestry department at the rate of 25,000 head per year and the forest stands are improving.

Very serious erosion has resulted from overgrazing in places in these territorial forest areas, but more so on the large estates of private land, leased to stockmen.

Exploitation of the timber, especially of the sandalwood many years ago, was very destructive. This slaughter of timber, the overgrazing by livestock, the some few fires, and the lava flows have brought about a situation so that no really extensive commercial forests exist in the Islands. Practically all lumber and other wood products are shipped in from the mainland of the U. S. A. Thousands of acres in gulches, especially in the cane and pineapple area of Oahu, and on plateau and hilly lands of all the Islands can be made to produce timber at a profit.

Eucalyptus and ironwood (Australian pine) grow vigorously. A sugar company planted 900 acres to eucalyptus but decided to cut it and plant the ground to pineapples. After cutting 50 acres the company found it had netted $30 per acre per year on the eucalyptus from the date of planting to harvest, selling the product for firewood, fence posts, and railroad ties. The stumps have sprouted well and need only the attention of a real forester to bring in a greater profit.

The greatest value of the Hawaiian timber and brush is for watershed protection. Overgrazing and wrong cultivation have dried up springs and small streams, especially in the Waianae Mountains, in the gulches and other mountain slopes on Oahu Island. Dr. H. L. Lyon, an engineer with the Sugar Association for 22 years, states there is an impervious layer of earth on the mountain slopes of Oahu. Under this is a porous layer that takes in water high up in the mountains and in breaks in this impervious layer lower down. Artesian wells sunk near the coast furnish the water for Honolulu and the other interests. Destruction mainly by overgrazing reduced the flow of the wells. Now under protection and by reforestation the wells are producing more water. Only as many people can live on Oahu Island as there is water for their needs. There are 25,000 or more soldiers on Oahu besides Marines and Navy men, and the civilian population of Honolulu and the rural areas in the coastal plain. Hence it becomes apparent that reforestation for watershed protection, especially on the island of Oahu, is of the greatest importance to every American.

The Sugar Planters Association, made up of 39 of the 41 sugar companies operating on the Islands, has done much reforestation and experimental work, and has been a real cooperating agency working with the Territorial Division of Forestry. Several species of sandalwood, eucalyptus, Norfolk Island pine, and many other varieties of trees and shrubs planted by the sugar companies and the Territorial Division of Forestry, on these denuded territorial lands are growing rapidly. The future outlook for the Hawaiian forests is most encouraging.

Algarroba (mesquite) was introduced many years ago, also the prickly pear cactus. These plants grow vigorously on the drier portions of the Islands, are very valuable in preventing erosion, and the pods of the algarroba make excellent stock food. Other introduced trees and shrubs are of great value in this reforestation work. Forest fires at present are not a serious problem in the Islands even in the dry situations, because some of the forest boundaries are fenced, the gates are locked, and the big landed estates that border the territorial forests help in keeping the people out. Permits are necessary for the hunting of pigs and goats. The general public is not allowed to enter the city watershed portion of the forest in Oahu; even the forest officers are examined every six months for evidence of typhoid.

It is apparent that the present timbered areas must be protected and the territorial forest land of this great far western outpost of the United States must be extended, if the public interests are to be properly safeguarded.

A PICTORIAL REVIEW OF THE NEW ENGLAND FOREST EMERGENCY PROJECT

By F. Ruth Waters, Washington

Taking a tip from the popular weeklies "Life" and "Look", the New England Forest Emergency Project decided to make its latest accomplishment report on the project a visual presentation of the activities, presenting its story with a series of 75 excellent photographs (all but one of which were taken by Bluford W. Muir, Washington office photographer) with a minimum of written material. These photographs trace the operations in New England from the early days of last October, showing the devastation immediately after the hurricane, through the various steps of hazard elimination and salvage work, up to the present time with ponds filled to overflowing with logs and storage yards piled high with well stacked lumber. All of these activities are still going on at the present time. Over five million dollars has been paid the owners of salvaged timber and to July 8 a total of 485 million feet of logs had been scaled. Two hundred and forty sawmills are sawing lumber from dry storage points and on the above date 142 million feet had been sawn.

Seventy-five copies of this pictorial report were made up and distributed to The President, the Secretary, New England Governors and Congressmen, and to the various Federal and State organizations that have cooperated on the project. The response so far has indicated a whole-hearted approval of the work of the Forest Service in New England and a keen appreciation of the report itself. Of the many acknowledgments received, however, the one bringing most pleasure was the following message received by Secretary Wallace and referred to the Forest Service. It is written on White House stationery and bears the signature of Franklin D. Roosevelt. "Please accept my thanks for your thoughtfulness in sending me a copy of the pictorial report on the New England Forest Emergency Project, together with notes on its operation. It is a most interesting compilation and I am very glad to have it. Please tell Silcox how delighted I am at the way it has worked out."

It is regretted that there are insufficient copies of the report to furnish one to each of the Regions, but a few copies will be routed around for review.

EXCERPTS FROM REMARKS OF HONORABLE THOMAS A. JENKINS OF OHIO IN THE HOUSE OF REPRESENTATIVES
JULY 10, 1939

"Mr. Speaker, there is no more popular department in the Government than the Forest Service. This is partly because of its competent personnel and partly because it deals with Nature and Nature's products. Its activities are interesting to all classes of people. ***

"The Bureau of the Budget of the present session of Congress recommended to Congress that only two millions be appropriated to the Forest Service for the purchase of land. This was less than had been appropriated for this Service for years. I have maintained steadily that this is one service where the money invested will furnish wholesome employment and will also create wealth. After considerable effort in both branches of Congress the appropriation was increased to $3,000,000. This is the total amount that the Land Acquisition Department of the Forest Service will be permitted to spend for its work in the next fiscal year.

"The National Forest Reservation Commission, at its meeting on July 6, modified its 20 percent regulation and has given orders for a resurvey of the whole situation. People of Ohio appreciate the action of the Commission and the moral support of the Forest Service. Because of the superior merit of the claims of the State of Ohio, I confidently believe that during the next year the Forest Service will again be in the market for the purchase of lands in the various Ohio units. It should purchase immediately all the land that it has under option and other lands upon which the options have expired. This will comprise about 100,000 acres which the Forest Service should purchase as soon as possible. With annual purchases in reasonable amounts for a few years, the Forest Service will have secured most of the available land in Ohio. It is not the intention of the Forest Service to purchase valuable land and to remove the same from the tax duplicate. Neither would it be the purpose of the people of the State to encourage the purchase of valuable land which can be used for the production of annual crops.

"While the Forest Service gives consideration to the recreational advantages of the land which it purchases, still its principal function is to take this cheap land and make it valuable by placing thereon a growth of valuable timber. Its purpose also is to give wholesome employment to men and boys and at the same time create wealth through the growth of trees. Their plan provides that as the old timber is cut and manufactured into timber products and that when the forests themselves will be manufactured into timber and sold, that 25 percent of all such sales shall go to the counties in which the timber is produced. An additional 10 percent is also paid to the road authorities for the construction and maintenance of roads and trails. The roads and trails in the forests themselves are maintained by the Forest Service.

"I feel that our efforts in again having the Forest Service resume its purchases and its activities in Ohio will eventually increase the value of Ohio lands by millions of dollars. Recreational facilities of these forest areas will also be of much greater importance in Ohio than in many other States where they already have an abundance of such facilities. These activities on the part of the Federal Forest Service will act as a stimulant to the conservation activities of the State of Ohio, which in the past few years have extended their activities considerably. Friendly cooperation of the Federal and State Forest and Conservation Departments will mean much to the people of Ohio by way of recreation and by way of increased value of land and forest products."

SOME PROPHETS ARE HONORED - FINALLY

T. V. Pearson of Region 4 strenuously advocated dropping fire fighters from aircraft by parachutes and some experimental work was done by Region 4. However, the idea gathered no converts; but now Mr. Godwin, of the Washington Office of Fire Control, writes from Portland:

"The idea of parachute jumping fire fighters has come strongly to the fore, and I find the strongest support for it here in R-6. There is a certain philosophy involved in this process entirely aside from the technique, and I think we all realize that we must approach the plan cautiously. To proceed with the work means the assumption of considerable responsibility, but I believe we are prepared for it. Mr. Merritt realizes what this means, and he also realizes how very effective the method would be if perfected. King has told us a lot about the ways of working it out and is thoroughly confident that it can be developed.

"Such work, of course, would be hazardous and human life is involved, but so it is in any great protective activity, military or civil. We are now taking risks in all of our flying activity in the Forest Service--we have been amazingly lucky. Conceivably, the scheme might prove far more practicable than that of dropping fire-retarding substances. It is possible that only in this way can we get quickly to those small fires, many of which are the infants which later grow into our over 300-acre fires.

"In flying over some of this country I have had this process in mind, and we have studied the terrain from the air, trying to pick out spots on which men might be dropped safely. In a general way we believe that experienced woodsmen and fire fighters should be trained to be jumpers, rather than to attempt to train experienced jumpers to be woodsmen. We believe that such men should be young, perhaps in their twenties; that they should be limber mentally and physically."

PRINCIPLES TO GOVERN SELECTION OF NAMES FOR NATIONAL FORESTS

The following principles, drawn up by the Committee on Names for National Forests (established by Mr. Silcox on April 11, 1939) at its first meeting on June 14, have been approved by the Acting Chief and other members of the Staff:

Names for National Forests normally will be derived from the following sources:

1. Surnames of persons historically or prominently associated with area or general region.

2. Historical or epochal events associated with area or immediate locality.

3. Names of characters in works of fiction or poetry so widely read and accepted by the American people as to be of classic and permanent historic quality and specifically identified with the area to be named or the region of which it is a part; e. g. Hiawatha.

4. Dominant or prominent natural features of the area or immediate vicinity.

5. Tribal or place names of preceding Indian populations or names of Indian Chiefs.

Names must be short and concise - preferably a single word and never more than two words; names difficult of pronunciation should be avoided; names which enable the general public readily to understand the regional location of the area are preferable to names lacking that quality; names of living persons should be avoided.

While the preferences of the people resident in or adjacent to the area to be named shall not be controlling they shall receive major consideration.

The procedure for the selection of names shall be (a) initial recommendation by Regional Forester, (b) comment by divisions of Washington Office, (c) consideration and selection by Forest Names Committee of Chief's Office, and (d) final approval by Staff and Chief.

THE EDITOR DISCOVERS

In a speech at the International Timber Conference, held at London, England, April 24-30, 1939, Sir George Loyd Courthorpe gave the following interesting account of repairs to the roof of Westminster Hall: "Westminster Hall, with its present roof, was built by a master carpenter who was paid five shillings a day for his work, and he put that roof up without any metal whatsoever. During the recent restoration, the distinguished architects employed on that work all agreed that none of them would have ventured to construct such a roof without the use of metal. Ninety-one percent of the timber in that roof had been there since the 14th century. Nine percent only was so damaged by the death watch beetle that it had to be replaced. It required over 17,000 cubic feet of converted oak timber to replace that 9 percent, which gives some idea of the gigantic task a 5s. a day carpenter had undertaken six hundred years ago. There was another point of rather romantic interest. Quite a number of the larger trees which were selected and felled to replace the great timbers of long ago were themselves over six hundred years old. They were growing there when their neighbours were taken out to construct the roof which they in turn six hundred years later were going to repair."

- - - - - - -

One of the Alaskan papers reported as follows regarding the Chief's recent trip there:

"F. A. Silcox, Chief U. S. Forester, and his assistant, R. F. Hammatt, were taken on a tour of Glacier Highway recreational CCC projects today by Regional Forester B. F. Heintzleman. Silcox was quite tickled about the 23-pound king salmon he hauled in while stripping off Marmion Island on the Forester's return from Sitka Wednesday, but he was rather annoyed that Hammatt took a fifty-pounder right 'out from under his nose', as he put it.

However, the Chief Forester took considerable pleasure in announcing that his assistant had since developed 'occupational neuritis in the right arm' from his battle with the king."

- - - - - - - - - -

It is understood that the Reserve Officers who are to continue in charge of the CCC camps in a civilian capacity are to have a distinctive uniform - of the same color as the new enrollee's uniform. The specifications for the officers' uniforms are being handled by the Army.

All Reserve Officers on duty with the CCC will wear this new uniform, Camp Commanders, Subalterns, Medical and Dental Officers, Sub-District Commanders and Inspectors. No change is right now contemplated in the uniform for the Supervisory and Facilitating personnel (Project Superintendents, Foremen, CCC Inspectors, etc.)

A group of eight British men and women under the leadership of Captain Richard St. Barke Baker, founder of the British conservation society "Men of Trees" and chairman of the British Forestry Association, is now on a tour of the United States to visit National Forests, Parks, and CCC camps. While in the East they planted two Canadian white oak trees at Fort Hunt, Virginia, in appreciation of President Roosevelt's work in conservation and in commemoration of the recent visit to Washington of the King and Queen of England. En route to the West Coast, they were to visit the Appalachian Forest Experiment Station, Pisgah National Forest, T. V. A., Kaibab National Forest, and the Grand Canyon.

In California their itinerary called for visits to the San Dimas Forest Experiment Station, and the Sequoia, General Grant, and Yosemite National Parks. While in California the group plans to look into the purchase of a grove of redwoods where tree lovers throughout the world may go for inspiration. A British donor, out of enthusiasm for America's reception to royalty as well as over the redwoods, is reported to have provided funds for the project.

From California they will go to Oregon, where they expect to visit the Mount Hood National Forest, Pacific Northwest Forest Experient Station, Forest Service Radio Laboratory, and thence east by way of Canada, arriving in New York about July 28.

An extensive revision of the Long Range National Forest Acquisition Plan for 1939 recently compiled by the Washington Office Division of Forest Land Planning shows that there are now over 155,632,000 acres of National Forest lands in forty States in units which include a gross area of 206,045,000 acres. Within this gross area there are 35,473,000 acres which should be purchased to block out logical administrative units in the interest of economy of operation, and in order to extend greater benefits to the many thousands of families living within their zone of influence.

Outside the existing gross area, studies indicate the presence of 55,337,000 acres net which should be purchased also, in order to serve the public interests. The total proposed purchase, amounting to 90,810,000 acres, would cost about $572,803,000; or about $6.30 for the average acre. To this should be added about 15 percent for overhead including necessary surveys, title search and clearance. This investment, plus costs for needed developments, administration, and maintenance is believed to be socially advisable. Current studies indicate that it will also prove to be economically sound.

A compilation by regions shows that of the existing National Forest areas 86 percent is concentrated in the eleven westernmost States, while the other 14 percent is scattered over twenty-nine States from Maine to Florida to Texas to South Dakota. The ultimate National Forest system, as now foreseen, would have 70 percent of its area in the eleven Western States and 30 percent in the other twenty-nine States.

Dr. Joseph S. Illick has just brought out his third edition of "An Outline of General Forestry," Barnes and Noble, New York (cloth $1.50, paper $1.00).

An amazing amount of information and statistics has been crowded into this small volume by Dr. Illick. Mr. Duthie, Chief of the Washington Office Section of Education says "It has the same careful and orderly arrangement of the text which has characterized the author's previous publications and is the most comprehensive publication suited to use by teachers and students of general forestry that I have seen."

- - - - - - - - - - -

The Central States Forest Experiment Station has moved to 90 West Tenth Avenue, Columbus, Ohio. The new quarters are located one block south of the Ohio State University and one block west of High Street.

- - - - - - - - - - -

Professor Nelson C. Brown, of the New York State College of Forestry at Syracuse University, will continue his studies of community forests in Europe this summer, according to a recent press release issued by the College. Professor Brown was engaged by the U. S. Forest Service, during his sabbatical leave last year, to help develop a program of community forests for this country. Professor Brown is traveling under an Oberlaender Trust fund which has sent a few American foresters to Europe to study methods of procedure.

- - - - - - - - - - -

There were chuckles in the Worcester, Massachusetts, office of the New England Timber Salvage Administration when a letter was received addressed to "U. S. Tinker Salvage."

C. S. JUDD

C. S. Judd, for a number of years Territorial Forester of Hawaii, died at Honolulu on June 29. He was a native of Honolulu and attended the Tonahou School in that city.

Mr. Judd was a graduate of Yale University, receiving his B.A. degree in 1905 and his M.A. in 1907. He entered the Forest Service in Washington, D. C. as Forest Assistant in the office of Management after his graduation from the Yale Forest School in 1907. From 1908 to 1914 he served in the Regional Office at Portland, Oregon, as Assistant Chief of Silviculture. He became Territorial Forester for Hawaii in 1914 and served in that capacity until 1937, when he was retired from active duty.

SOCIETY OF AMERICAN FORESTERS TO HOLD NATIONAL MEETING IN SAN FRANCISCO

The annual National Meeting of the Society of American Foresters will be held in 1939 at the St. Francis Hotel in San Francisco on November 23, 24, and 25. The California Section of the Society extends a cordial invitation to all foresters, lumbermen, and others interested in forestry to attend this National Meeting. A program of wide interest has been built around the general theme of "The Next Thirty Years in Forestry." Speakers from various forest agencies and the lumber industry will lead the discussions of prospective developments in lumbering and forest conservation.

The date of the National Meeting has also been selected to enable visitors to attend the Golden Gate International Exposition. The latter part of November will be an ideal time to enjoy the numerous features of this World's Fair on Treasure Island in San Francisco Bay. Field trips to lumbering operations in the Redwood Region and to various others places of interest in California will also be available for visitors.

SERVICE BULLETIN

Contents U S Confidential

LIBRARY
RECEIVED
1939
of Agric

Vol. XXIII No. 16 Washington, D. C. August 7, 1939

"IN COOPERATION WITH THE UNITED STATES FOREST SERVICE....."

By Marvin Beers, Washington

When Orson Welles broadcast his now famous drama based on a mythical invasion of the world, he scared the socks off a lot of people -- and a lot more said how silly it was to be frightened by a radio play, especially after they found out it was all good clean fun. The incident will find its place in Americana along with other "fluke" stories. But it has a trenchant significance in that it gets across with a bang the power of radio as an instrument of communication.

The Red Network of the National Broadcasting Company includes over 100 stations and reaches a potential audience of 17 million people. Naturally, all of these people will not be at their radios listening during every program. But over a period of time, with a series of broadcasts, the larger networks eventually reach their maximum audience.

Cooperation offered by the National Association of Broadcasters may help to make available to the Forest Service a radio network larger than any of the present broadcasting chains -- a network of nearly 200 stations for our campaign on forest conservation and forest fire prevention this year. In a letter to the Chief Forester, Mr. Ed Kirby of the National Association of Broadcasters said: "We would very much appreciate the opportunity of bringing into line our member stations, who are most desirous to cooperate with the Forest Service. NAB headquarters will send out a letter from its President, Mr. Neville Miller, requesting the cooperation of member stations so that in the seasons when you have most need of this service, radio will be working shoulder-to-shoulder with you..."

The National Association of Broadcasters is an organization made up of a majority of all the commercial radio stations in the country. In many respects it serves the same purposes in the radio industry that the Will Hays organization provides for motion pictures.

The Division of Information and Education in Washington has prepared a folio of program suggestions for spot announcements, interviews, and dramatizations. This folio has been sent to about 200 stations of the NAB membership. The stations will need the advice of local Forest Service personnel as to timing and use of the material they receive to get the maximum results and for the adaptation of the scripts to local conditions. The Regions have been notified of the distribution of the folios and to which radio stations they have been sent.

The stations selected should give almost complete radio coverage of the United States. Naturally, all of them are interested in programs of public service, both local and national. And they are especially interested in programs dealing with problems which affect the people they consider as their local audience -- the home folks.

MULTIPLE LAND USE IN PUERTO RICO

By A. K. Thurmond, R. 8

Combination of land use reaches its highest possibilities for development in Puerto Rico. With less than one-half acre of arable land per person left - every acre must count. Upon the establishment of the CCC, and the attending program of land acquisition in 1933, the Forest Service was early confronted with the problem of what to do with the many families living on the newly acquired areas. They owned neither the land they tilled nor the crops they planted. Their right to live depended upon the good will of the landowner. By 1938, more than 100 "squatter" families, or some 600 people, were occupying National Forest land. Such a large number of people were concerned that to force them to move would only aggravate the serious population pressure throughout the Island. They could not be kicked off - there was no place for them to go.

The second problem, of a technical nature rather than social, but none the less serious, was the tremendous difficulty of establishing plantations on the brush and pasture lands. Tropical forest planting differs from planting in temperate climates mainly in the additional labor and expense of eliminating weed and grass competition until the seedlings have reached a size able to cope with the tenacious and vigorous herbaceous cover. Usually this size is reached after two years. A minimum of three weeding operations a year for the first two years is necessary if seedling survival and growth are maintained. Since each weeding costs approximately $4 per acre, it can readily be seen that some $24 is added to the initial investment of each acre of plantation established.

Faced with these two pressing problems, and having some indication that intercultivation of agricultural crops between rows of planted seedlings offered a possible solution to both, it was decided to try a system similar to the one so successfully practiced by the British on their teak plantations in India. The "parcelero" system was initiated. In brief, plots or parcels of 5 to 10 acres each were assigned under special use permit, renewable annually, to a family. The family worker, or "parcelero", planted forest seedlings under careful supervision, and cultivated his subsistence crops between the rows of growing trees. After two years, such survival and rapid growth were attained by trees planted by "parceleros" that it was decided to expand the system to the more arable areas in all plantations. A special use permit is drawn up for each permittee containing conditions amply protecting all interests of the Forest Service. Houses may be constructed by the permittees on each parcel from material salvaged from down timber by CCC labor. Nearly 250 families are under permit to date, involving some 2,000 acres and 1,500 people.

Close cooperation between the Forest Service and other Government agencies in Puerto Rico, such as the Puerto Rican Reconstruction Administration and the Soil Conservation Service, assures the greatest possible benefits to the people concerned. Agricultural Extension Agents have offered their services to demonstrate proper agricultural practices and crop diversification to the permittees. Vegetable seed is distributed by the P.R.R.A. free of charge whenever there is a surplus available. The SCS made a special study of erosion control on lands cultivated under the "parcelero" system and suggested preventive methods to reduce soil loss from erosion on the cultivated areas.

Advantages of this system to the Forest Service are immediately apparent. Large areas of plantations can be established for the cost of seedlings and necessary supervision. But the greatest advantages accrue directly to the people themselves. Observations in areas where the system has been in operation for several months show a decided change in attitude on the part of the people. Permittees continue their enthusiasm for work, and by their excellent cooperation are beginning to see the value of the trees under their care in terms of future work and income for their families. A pro-forestry attitude is being developed which is spreading to private lands adjacent to the National Forests. This change in attitude, from the mining methods of the destructive "conuco" system to one of conservation will, in the long run, do more toward solving the forest problems of Puerto Rico than the combined efforts on all public forest lands throughout the Island.

FOREST SERVICE UNIFORM HATS

By M. R. Kennedy, Washington

The John B. Stetson Company, manufacturer of our present uniform hats for regular employees, has, we believe, given splendid cooperation and service not only in connection with the hats furnished but also in making adjustments in cases where Forest Service officers have complained with respect to certain unsatisfactory features.

The latest complaint on Stetson hats came from one of our Western Regions and a resume of the complaint and adjustment appears to be in order. Upon advice from this office and at the request of the John B. Stetson Company this particular Region returned four uniform hats which were considered to be defective in that they leaked badly when worn in the rain. The Stetson Company, upon investigation, found that three of the hats were shipped in 1936, two in May and one in June, while the other one was shipped in March of 1938 - these hats being returned to Stetson around the first of June of this year. Stetson informs us that the hats were carefully examined and judging from the length of time they had been in service and from their appearance, they had been worn hard and had given good service. One of the hats was found to be thin in the crown and it was concluded that this one was not quite as heavy as it should have been at the time it was shipped. Stetson felt that the other three hats could be placed in good condition by renovation and this is being done without charge. One of the hats was found to be badly cinder burned and one was "turned" in a renovation which was not performed by Stetson.

The Stetson Company assures us they are making every effort to keep their merchandise up to a high standard and to make improvements whenever possible. They report that their research laboratory is developing a change in the process of finishing their hats which will have a tendency to make them more waterproof than heretofore.

The purpose of this article is to point out that no one should expect even a Stetson hat to last indefinitely and that greater care should be exercised in knowing the complete history of every hat on which complaint is to be registered. If this is done it is possible that some of the complaints which Stetson has so generously handled for us would not be reported.

SANTA FE FOREST FEATURED IN BROADCAST AND SPOTLIGHT

(From a recent R-3 letter)

"During the week beginning June 19, motion pictures of fishing on the Pecos Division of the Santa Fe National Forest were made by Grantland Rice Sportlight representatives, and a broadcast over a CBS coast-to-coast hookup was put on by Bob Edge, CBS rod and reel editor.

"The project was initiated by TWA airline, which desired to show eastern sportsmen they could hop a plane in New York City one evening and be fishing in New Mexico the next afternoon, then go on by TWA for further sport at Lake Mead and the Pacific Coast. Hearing of TWA's plan, R. F. Kelleher of Information and Education got in touch with Clancy W. Dayhoff, head of TWA's new bureau. At first the party was considering some large lakes where the fishing is unquestionably good but which were not on a National Forest. By offering cooperation and describing the possibilities of the Pecos River country on the Santa Fe the party was induced to go there.

"On June 19, the party of approximately 20 persons who had for the most part been flown from either coast, started from Albuquerque by automobiles. In the party were Jack Eaton, manager for Grantland Rice; three of his cameramen; Ted Husing, CBS sports commentator who also does the narration for the Sportlight films; Bob Edge, rod and reel editor for Columbia Broadcasting System; Broderick Crawford, Broadway actor (Of Mice and Men); Betty Lawford and Lucia Lacert, Broadway actresses; and Clancy W. Dayhoff, head of TWA news bureau with headquarters at Kansas City. John Martin, an editorial executive of Time magazine, who arrived later, was met by a Forest Service man and after spending a day and night at the ranch headquarters was returned to Santa Fe so that he could make an airplane connection for the East. Grantland Rice was prevented at the last moment from accompanying the party.

"C. R. Dwire and R. F. Kelleher of Information and Education and Merle A. Gee, aquatic biologist in the Wildlife and Range Management Division, Region Three, accompanied them. Gee, in addition to his tehnical knowledge, is one of the best fly fishermen in the Southwest and his assistance was invaluable to the enterprise.

"In five days' time, the Grantland Rice party got the pictures they were after, and worked the name of the Santa Fe National Forest into the spoken lines of the sound track. Most of the party packed into the Pecos Wilderness Area and spent a night camped at Lake Catherine. Some of the best shots were obtained here.

"On June 22 at 2:30 p.m., M.S.T., Bob Edge put on his weekly 15-minute broadcast 'Outdoors with Bob Edge,' in the form of a streamside broadcast from the bank of the Pecos. This was done at the party's headquarters, the Brush Ranch, close to the river in Pecos Canyon. Technicians set up connections with a CBS station at Albuquerque, and Edge said the program went to about three-fourths of the Columbia Broadcasting System stations, or about 101 stations.

"Edge was unstinted in his praise of the country and the fishing and pointed out that it was on the Santa Fe National Forest. After Edge interviewed representatives of TWA, the Brush Ranch, the Grantland Rice Sportlight, and Governor John E. Miles of New Mexico, he called on Ranger J. W. Johnson of the Pecos District. Johnson was used for about two minutes of the 15-minute program, longer than any other individual. Questioned by Edge, Ranger Johnson told about his 374,000 acre district and its importance as a National Forest area, told about the fire danger on it at that time due to dryness and winds, and asked people coming there to be careful with matches and the like. Asked about his most interesting experience as a ranger, Johnson recalled the time elk poachers held him at gun point, until he escaped. Johnson made a natural presentation. When he appealed to fishermen to be careful with fire, Edge cut in with the statement that he had been preaching the same thing for years.

"As a part of the business of the broadcast the mike was carried to the stream's edge where Ted Husing was playing a large trout with a running fire of advice from Edge and others. The sound of the stream and the splashing of the fish as it was netted could be plainly heard on the air. Husing presented the fish to Governor Miles who accepted it before the mike.

"The New Mexico Fish and Game Department gave valuable assistance to the project.

"The Grantland Rice Sportlight including the Pecos fishing scenes is due for release this fall, we were informed. The Sportlights are said to go to 7,000 theaters in this and other countries, taking one and one-half years for one picture to make the circuit."

REVIEWS OF RECENT BULLETINS

Annual Report of Northern Rocky Mountain Forest and Range Expt. Sta.

Although more fires than normal occurred in Region 1 during 1938, only 100 acres were burned per million acres protected, according to the annual report of the Northern Rocky Mountain Forest and Range Experiment Station. This equals the best record ever before attained in the region. The use of fire-danger measurements and fire control planning were unquestioned major reasons, the report continues, for attaining such excellent results.

Gratifying progress is also reported with regard to forestation studies, and particularly in direct seeding. Three species - western white pine, ponderosa pine, and Engelmann spruce were seeded on four different sites in both the spring and fall. These tests have already shown that, given protection from rodents, direct seedings promise to be successful.

A large-scale test of the use of poison to protect the seeded areas has been instituted. Seedings of Engelmann spruce were successful without protection from rodents. Tests of western red cedar have been begun to determine if this species, like Engelmann spruce, may tend to be immune from rodent depredations. Direct seeding offers definite promise as a useful adjunct to planting in the reforestation program of the region.

An upward trend was noted during the past year on drought-stricken short grass ranges which have declined alarmingly in density since 1933. Although the year as a whole had a precipitation deficiency of only 14 percent of the long-time average at Miles City, the spring months were very favorable for range recovery. Abnormal height growth did something to make up the deficit in density.

Livestock production is one of the major industries upon which much of the development and prosperity of the northern Rocky Mountain region has been based, since the range lands in this region comprise 60 percent of the total land area in all forms of Federal, State, county, and private ownership.

Range surveys have now covered approximately 42 million acres, or 65 percent, of all range lands in the region. Most of the recent surveys have been done on privately-owned range land. Range surveys of some 10 million acres of National Forest land have also been made to date.

The publications list of the 1938 annual report contains fourteen articles used in outside publications and sixteen multilithed and mimeographed progress reports.

"Forest Products Statistics of the Lake States" - Statistical Bulletin No. 68

This is the third of a series of publications planned for all forest regions, eventually to cover forest product statistics for the entire United States. Those for the Rocky Mountain States and for the Pacific Coast States appeared in Statistical Bulletins 64 and 65, respectively. R. V. Reynolds and A. H. Pierson are the authors. According to the report:

"The annual average amount of timber products taken from the forests of the Lake States during the period 1925-29 was estimated to be about a billion and a quarter cubic feet. In addition, damage by fire, disease, and insects was estimated at about 70 million cubic feet annually.

"Between 1869 and 1899 the Lake States were the leading source of lumber supply in the United States, and famous for the quality of their white pine and hardwoods. Consumption did not reach its peak until 1909, about 20 years after the greatest cut was recorded. Shortly thereafter the cut was no longer sufficient to supply the regional requirements, which now are largely met by shipments from the South, the Pacific Northwest, and Canada. In 1936 about 60 percent of the lumber used was shipped into the region.

"The aggregate lumber cut from 1830 to 1935 has been estimated to be 407,700 million feet board measure. The value of the aggregate lumber cut, at the mill, during this period was in excess of $5,000,000,000. To this sum must be added the value of forest products other than lumber for which adequate price records are not available."

"Fifty Inches of Rain"

This pamphlet published by the Tennessee Valley Authority is a report concerning the accomplishments and plans of that organization in evolving a unified plan for the development of the Tennessee River drainage area. Beginning with a brief discussion of the two major problems, that of control and use of river waters and that of problems of the contributing watershed, the principal phases of each are discussed in some detail. The harnessing of the river for flood control is being accomplished through the construction and unified operation of a series of dams to be completed in 1945. Estimates indicate that the completed system will provide annual benefits of approximately $380,000,000 through flood control in the lower Mississippi valley alone. With appurtenant navigation locks, canals and channels, a navigation channel will be extended up the Tennessee River 678 miles to Knoxville. Such benefits are but a part of the picture. The potential energy of stored water is being put to use by transformation into electric power for distribution throughout the basin.

Better and cheaper fertilizer is being developed at the Muscle Shoals wartime munitions plant. Improved farming and soil improvement practices are being applied in cooperation with the people of the valley, soil erosion is aggressively combatted, measures for forest protection and improvement are being intensified, and additional recreational opportunities created. Problems of malaria control, sanitation and biological readjustment within and adjacent to the modified river course are being solved. These and many related activities, together with a description of the Authority's organization and administrative functioning are described in interesting but not involved detail, and result in a lucid recital of the progress in land and water conservation that is taking place in the Tennessee Valley.

OUR ATTITUDE TOWARD BRUIN

By John Hatton, Washington

Forest Officers generally and for many years now have sought to give bear a more favorable status among the animals of the National Forests than the heritage handed down to him from pioneering days. We have used our influence consistently to see that this interesting resident now found in limited numbers on 134 of our National Forests be transferred from a predator classification to the dignity of a game animal, the same as deer or elk, which he deserves.

The trend of the latter concept is shown by the fact that in 1937 twenty-one States had regulated open seasons on bear, with parts of some of these States giving him full protection. At least six States had in their game laws "no open season", and less than half-a-dozen treated them purely as outlaws. The rest had no bears to protect or hunt.

Criminals are recognized among bears the same as in the human family. We have ways and means of handling all such. But bears as a family should not be rated in that class either from the standpoint of public menace or to satisfy that inherent lust in some of us to kill just for excitement or pleasure and have a bear story to tell.

A sheep herder on the Bighorn Forest, Wyoming, a few years ago stated some good National Forest bruin philosophy when he said: "Yes, I'm for conservation and especially for conserving the bear."

(The above article was inspired by a recent news note indicating that killing of bear on sight is still considered a "duty" in some rare localities. - Ed.)

ON THE JOB

"Those Forest Service boys were certainly on the job over the Fourth of July holiday. Part of their job was checking cars, and odds are that they didn't miss a one.

"We took a jaunt into the hills, mostly for the ride, though we did fish a little.

"Into Lowman we went and stopped a short time on the south fork of the Payette. We came back to the car to find on it the red welcome tag of the Boise Forest. Then we doubled back and went over to the north fork of the Boise. Again we returned to the car to find another welcome tag tucked under the windshield wiper.

"It's funny one never sees any of these Forest Service men, but those tags sure saved us from taking a chance and dropping a line in a closed stream near the north fork. If those forest men can sneak up on a car to place a tag, they would sure sneak up on a person who was doing something illegal."-Boise Capital News.

FOREST SEED POLICY

Secretary Wallace has approved the following forest seed policy, which will govern all planting by the Department of Agriculture and its cooperators. The policy statement was drawn up jointly by representatives of the Forest Service and the Soil Conservation Service, and was endorsed by the Seed Policy Committee.

"Recognizing that trees and shrubs, in common with other food and fiber plants, vary in branch habit, rate of growth, strength and stiffness of wood, resistance to cold, drought, insect attack, and disease, and in other attributes which influence their usefulness and local adaptation for forest, shelterbelt, and erosion-control use, and that such differences are largely of a genetic nature, it shall be the policy of the U. S. Department of Agriculture in so far as practicable to require for all forest, shelterbelt, and erosion-control plantings, stocks propagated from segregated strains or individual clones of proven superiority for the particular locality or objective concerned. Furthermore, since the above attributes are associated in part with the climate and to some extent with other factors of environment of the locality of origin, it shall be the policy of the U. S. Department of Agriculture:

"1. To use only seed of known locality of origin and nursery stock grown from such seed.

"2. To require from the vendor adequate evidence verifying place and year of origin for all lots of seed or nursery stock purchased, such as bills of lading, receipts for payments to collectors, or other evidence indicating that the seed or stock offered is of the source represented. When purchases are made from farmers or other collectors known to operate only locally, a statement capable of verification will be required as needed for proof of origin.

"3. To require an accurate record of the origin of all lots of seed and nursery stock used in forest, shelterbelt, and erosion-control planting, such records to include the following minimum standard requirements to be furnished with each shipment:

(1) Lot number.
(2) Year of seed crop.
(3) Species.
(4) Seed origin: State, County, Locality, Range of elevation.
(5) Proof of origin.

"4. To use local seed from natural stands whenever available unless it has been demonstrated that seed from another specific source produces desirable plants for the locality and uses involved. Local seed means seed from an area subject to similar climatic influences and may usually be considered as that collected within 100 miles of the planting site and differing from it in elevation by less than 1,000 feet.

"5. When local seed is not available, to use seed from a region having as nearly as possible the same length of growing season, the same mean temperature of the growing season, the same frequencies of summer droughts,with other similar environment so far as possible, and the same latitude.

"6. To continue experimentation with indigenous and exotic species, races, and clones to determine their possible usefulness, and to delimit as early as practicable climatic zones within which seed or planting stock of species and their strains may be safely used for forest, shelterbelt, and erosion control.

"7. To urge that States, counties, cities, corporations, other organizations, and individuals producing and planting trees for forest, shelterbelt, and erosion-control purposes, the expense of which is borne wholly or in part by the Federal Government, adhere to the policy herein outlined."

ARTICLES BY MEMBERS OF FOREST SERVICE APPEARING IN OUTSIDE PUBLICATIONS

Compiled by Washington Office Library

ANDERSON, I. V. Results and application of a logging and milling study in the western white pine type of northern Idaho, by E. F. Rapraeger. University of Idaho Bul. vol. 33, no. 16. 55p. plates, figs. Published by Western pine association, State forester of Idaho, and School of forestry of the University of Idaho. 1938. (Book review). Jour. Forestry 37(6): 505. June 1939.

BRIEGLEB, P. A. Forest mensuration, by Earl G. Mason and Harry I. Nettleton. 4th edition. 131p. illus. (Lithographed). Oregon state college cooperative assoc., Corvallis, Oregon. 1938. (Book review). Jour. Forestry 37(6): 505-506. June 1939

BRUCE, H. D. The role of chemicals in firebreak maintenance. In Utah. State agricultural college. Utah foresters. The Utah Juniper. v. 10. 1939. p. 12-19.

CHAPLINE, W. R. Can research aid in the solution of range problems? In Iowa. State College. Forestry club. The Ames Forester. v. 27, 1939. p. 7-17.

CULLEY, M. The decagon for vegetation studies. illus. Jour. Forestry 37(6): 492-493. June 1939.

CUNO, J. B. Production of loblolly pine pulpwood in the mid-Atlantic region. illus., tables. South. Pulp and Paper Jour. 1(4): 13-16. Mar. 1939; 1(6): 9-15, 26. May 1939.

GISBORNE, H. T. Fire danger meter design. In Utah. State agricultural college. Utah foresters. The Utah Juniper, v. 10. 1939. p. 5-11.

GOODELL, B. C. A soil boring tool for frost depth determination. diagrs. Jour. Forestry 37(6): 457-459. June 1939.

GUTHRIE, J. D. American place names, by Alfred H. Holt. 220p. Thomas H. Crowell co., New York, 1938. (Book review). Jour. Forestry 37(6): 504-505. June 1939.

HETZEL, J. E. An extension rod for measuring tree heights. diagr. Jour. Forestry 37(6): 494-495. June 1939.

HORNIBROOK, E. M. A modified tree classification for use in growth studies and timber marking in Black Hills ponderosa pine. tables, diagrs. "Literature cited": p. 488. Jour. Forestry 37(6): 483-488, June 1939.

KIRKLAND, B. P. Care of forests and cutting for profit, by Herman Work and W. R. Gingerioh. 39p. illus. West Virginia pulp and paper company. Covington, Va., Piedmont, W. Va. 1939. (Book review). Jour. Forestry 37(6): 499. June 1939.

KOEHLER, A. A dictionary of wood, by E. H. B. Boulton. 205 p. illus. Thos. Nelson and sons, Ltd., London, Toronto and New York. 1938; and Philippine woods, by Luis J. Reyes. Philippine dept. agric. and commerce. Tech. bul. 7. 536p. plates. 1938. (Book review). Jour. Forestry 37(6): 502-503. June 1939.

MOREY, H. F. Research problems in the management of the northern white pine in the northeastern United States. In Iowa. State College. Forestry club. The Ames Forester, v. 27. 1939. p. 41-47.

NELSON, A. Z. Why not more State trees? illus. Trees Mag. 2(1): 7, 16-17. Jan. 1939.

PAUL, B. H. Variation in the specific gravity of the springwood and summerwood of four species of southern pines. illus., tables. diagrs. Jour. Forestry 37(6): 478-482. June 1939.

PEARSON, G. A. The forests of Sweden, by Thorsten Streyffert, New Sweden tercentenary publications. 72p. illus. Alb. Bonniers Boktryekeri, Stockholm, 1938. (Book review). Jour. Forestry 37(6): 500-502. June 1939.

RANDLES, Q. Logging in the Southwest. In Michigan. University. School of forestry and conservation. Forestry club. The Michigan Forester, 1939. v. 20. 1939. p. 16-19.

REYNOLDS, R. R. Management of the forest for maximum production. In Michigan. University. School of forestry and conservation. Forestry club. The Michigan forester, v. 20. 1939. p. 12-15.

RUDOLF, P. O. The plant and its water supply, by E. J. Salisbury. Jour. Royal Hort. Soc. 62(10): 425-442. illus. 1937. (Book review). Jour. Forestry 37(6): 499-500. June 1939.

SCHREINER, E. J. Some ecological aspects of forest genetics. Jour. Forestry 37(6): 462-464. June 1939.

SHERRARD, E. C. Wood plastics, their development and future importance. In Michigan. University. School of forestry and conservation. Forestry club. The Michigan Forester, v. 20. 1939. p. 33, 68-69.

SPARHAWK, W. N. Forets Privees. Gestion - Regime Fiscal - Reboisement des Terrains Incultes - Propaganda Forestiere (Private forests: Their management, fiscal control reforestation of waste land and forestry propaganda). v. 1. Europe. Compiled by Geza Lunoz. 386p. International institute of agriculture, Rome. 1938. (Book review). Jour. Forestry 37(6): 503-504. June 1939.

VAN METER, T. H. Recent fire control developments. In Utah. State agricultural college. Utah foresters. The Utah Juniper, v. 10. 1939. p. 20-24.

WINTERS, R. K. Fuelwood consumption in the lower South. map. Jour. Forestry 37(6): 445-448. June 1939.

WOODBURY, T. D. Comments on "What woods practices are necessary for the development of private forestry" by Clyde S. Martin. Jour. Forestry 37(6): 465-468. June 1939. Jour. Forestry 37(6): 469-470. June 1939.

EXPLORATIONS ON MANTI FOR PREHISTORIC MONSTER

Explorations are being conducted this summer on the North Horn area of the Manti National Forest by Smithsonian Institute paleontologists in search of remains of the gigantic titanosaurus, 20-ton monster of 80,000,000 years ago. During the past two summers considerable fossil skeletal material of these great reptiles has been collected, and Dr. C. L. Gazin, who is directing the explorations, hopes to obtain enough more this summer to reconstruct a whole skeleton. Hitherto these great plant-eating dinosaurs had been known in North America from only two bones found in 1921 by a U. S. Geological Survey geologist in New Mexico. Remains of the family previously had been found in India, South America, Indo-China, southern France and Madagascar. Their actual presence on this continent remained in doubt until the Manti Forest discoveries.

These titanosaurs, 75 feet long and more than 12 feet high, lived in the upper cretaceous period of geologic time just before the dawn of the time when mammals, the remote ancestors of man, became the dominant creatures on the earth. Although neither the largest nor most fearsome of the great reptiles, they are noteworthy as the last of the giants.-R-4 "Daily News."

SERVICE BULLETIN

Contents Confidential

Vol. XXIII No. 17 Washington, D. C. August 21, 1939

IMPRESSIONS OF ALASKA

In giving the Staff high lights of impressions obtained by him on his recent trip to Alaska, Mr. Silcox said, in part:

"Alaska is primitive; needs no special measures to keep it so."

"Summer Homes: Popular in Alaska. Provide a much-needed change after long winters. Business well handled."

"Roads: Extremely scarce. Needed, by established communities, as a physical and mental outlet for a 'shut-in' people. In general, present Forest Service road appropriation should be increased and construction should not necessarily depend on economic justification."

"Tourists: Will probably be no phenomenal increase because of (1) fog and (140" of) rain in southeast, (2) lack of things to do (and facilities for doing them) other than round-trip on main steamers, (3) difficulties in securing steamer accommodations after stop-overs. There is need to develop facilities adapted primarily to water trips in southeastern Alaska. For example: Planned trips for small parties combining trout fishing, seeing brown bear (with simple lodges ashore), clamming, sea fishing, an Indian Village (with totem poles, etc.) and visits to glaciers. This will require promotion in selective fields to get tourists, arranging for transportation (boats to eat and sleep on and to transport parties), and construction (and perhaps operation) of a few simple but adequate camps or lodges. Our experience indicates possibilities for (say) one such round trip out of Ketchikan, another out of Juneau; with a different development on or near Kenai Lake and Russian River. Cooperation with Alaska S. S. Co. seems essential."

"Addition to Chugach of Kenai peninsula area seems desirable in order to try out planned and coordinated development and management of (a) wildlife, (b) recreation, and - perhaps in the future - agriculture."

"Wildlife Management: Are we 'talking' or 'doing'? Let's investigate possibilities of big-game industry; shipping quick-frozen or canned big-game - as a delicacy - to the States. Neither Hammatt nor I saw moose (plentiful on Kenai peninsula) but we did see the following: Deer; otter, land; bear, black, brown, grizzly; fox, red, black, silver; sheep, Alaska;

goat, Rocky Mountain; beaver; caribou; duck; geese; raven; gull; cormorant; eagle, bald, golden; ousel; tern, Arctic; snipe; hawk; seal, hair; dogfish; porpoise; whale; trout, rainbow, steelhead; salmon, king, red, white; flounder; cod, rock; halibut; bass, sea; herring; 'Irish Lord'; clams."

"Saw restoration of totem poles and (or) community houses and villages, done through the Forest Service by Indians themselves, at (a) Saxman, (b) 10 miles out of Ketchikan, (c) Kasaan (James Peele) (d) Wrangell (Chief Shake's house), Sitka (on national monument). This restoration is a fine thing, and Heintzleman is to be congratulated. There's a real opportunity for research into (Alaska) Indian history, customs, religion, etc., with special reference to totem poles and community houses - followed by a short but attractive Forest Service publication, for public distribution, highlighting our restoration work and the specific places where it can be seen."

"Agricultural Possibilities: (a) In Southeast Alaska: Nil. On what little land (near coast) that is level enough, costs for clearing run up to $2500 per acre. People do raise vegetables and berries in small patches, however, - and gorgeous flower gardens!

"(b) Matanuska: No question about ability to raise most vegetables. Also poultry, eggs, pigs, milk, buttermilk, cheeses, etc. There is an enormous market, from Anchorage to Fairbanks, though future agricultural development at latter place may cut Matanuska's potential markets. No definite freight-rate figures obtained, but I judge agricultural products raised at Matanuska and Fairbanks cannot compete with States-raised stuff shipped to southeastern Alaska. Irrespective of original costs, Matanuska is a success agriculturally. It has developed what seems to be an up-to-date and efficient 'cooperative' for grading eggs and poultry, making cheese, etc., packaging and selling crops and dairy products. It has only 17" of rainfall, but soil is frozen 2½ feet under surface. Growth occurs twenty hours per day; rainfall occurs in critical months, and is held in the top soil. Method of clearing land has been wasteful of top soil, and experience at Experimental Farm at Fairbanks (where one half of 17" top soil on slopes has been lost after twenty years of cultivation, by erosion) is significant. *** There appear to be millions of acres suitable for agriculture around Matanuska. *** Agriculture at Matanuska should be developed by practical farmers of the American type.

"(c) Fairbanks: According to Oldroyd (in charge of experiment stations in Alaska) this place - and its tributary country - pays up to $1,200,000 per year for vegetables, small fruits, meats, and dairy products most of which it is possible to raise locally. *** Present agricultural use around Fairbanks is, according to Oldroyd, as follows (exclusive of Experimental Farm): There are forty people 'living on the land'. Of these, twelve people raise crops for the market. These twelve people farm a total of about 1,000 acres. The other twenty-eight people farm an average of ten acres each, or a total of 280 acres. Total area farmed, around Fairbanks, is 1200-1300 acres."

"Pulp: Timber on the Tongass is estimated at 78 billion feet b. m. of hemlock, spruce, and cedars. Local output is now negligible. Greatest potentialities for pulp for newsprint. Timber capable of supporting seven pulp mills, of 500 tons daily capacity - on sustained yield basis. I understand surveys have been made, mill sites - with ample water for power, etc. - located. Estimated that each site will support a town of around 5,000 people. *** I promised the Juneau Chamber of Commerce to investigate the possibility of getting out an attractive publication covering pulp possibilities, opportunities, difficulties, etc. for southeastern Alaska."

THE RANGE RESEARCH SEMINAR

By C. F. Hunn, Washington

During the fortnight of July 10 to 22, 54 members of the Forest Service, for the most part from the Divisions of Range Research and Range Management, met as guests of the Intermountain Forest and Range Experiment Station at the Great Basin field station, near Ephraim, Utah, 9,000 feet above sea level and far above the summer heat and humidity of their accustomed offices. The occasion was a range research seminar.

Responding to the call of W. R. Chapline, Chief of the Division of Range Research, researchers and administrators alike took active part in the presentation and discussion of a broad program of range topics and in the work of committees appointed to round up high lights of the floor discussions and present specific recommendations. Discussions during the first week emphasized largely the accomplishments, needs, and aims of research. During the second week, after the whole group of administrative men had arrived, the program partook more largely of topics of western-wide and Service-wide interest.

Sustained interest, hearty cooperation, and unflagging earnestness were characteristic of these sessions, in which range research objectives were reoriented and clarified, methodology was taken apart and put together again, station organization was challenged, station integration, both within and between stations, was mapped out, and a venture was made at outlining possibilities of cooperation with other agencies.

The discussions of the second week were especially profitable in bringing out both research and administrative points of view on studies in utilization standards, season of use, artificial revegetation, and the many-sided problem of multiple use of range. The present and future needs of research and the problem of getting research results into practice were also gone into without gloves but with a manifest, enheartening endeavor on the part of all present to understand the other fellow's difficulties and to arrive at a mutually satisfactory basis for future activity.

Everyone partaking in the seminar expressed complete satisfaction with the character of the sessions and the high values obtained. The fine spirit of hard work and cooperation shown by all was evident in the fact that the fairly heavy program of about 40 separate discussions, although falling behind schedule at times, was finished up, with all committee reports read and approved by noon of Saturday, July 22. One feature of the committee work that proved notably helpful was the calling of committee meetings prior to the presentation of the subjects to be covered, for the purpose of considering questions that should be brought out for group discussion, appointing reporters to take notes on the floor discussions, etc.

Meanwhile the lighter but important matters of comfortable quarters, good food, and recreation were cared for in a most satisfactory manner by the Intermountain Station, under the immediate supervision of Lincoln Ellison, who functioned in the double capacity of active member of the seminar and superintendent of the Great Basin branch station. Baseball teams representing the two mess halls were given free rein to run up astronomical scores, and those who could not make the two nines (or more exactly twelves or fifteens) were provided with a tennis court, horseshoe courts, and a croquet ground.

Despite the demands for evening hours for committee meetings, four evenings were given over to illustrated talks by Dr. Walter P. Cottam, Professor of Botany, University of Utah, on the Ecology of Southwestern Utah; Dean Wanlass, School of Business Administration, Utah State Agricultural College, on Historical and Economic Development of Utah; Reed Bailey on Geologic and Ecologic Approach to Our Watershed Problem; and W. R. Chapline on Grassland and Forest Problems of Great Britain and Northwestern Europe. Supplementing Dean Wanless' lecture, Professor Weldy, also of the Utah State Agricultural College, entertained the group with songs and stories.

Opinion expressed by both research and administration men at the close of the sessions emphasized the harmony that had prevailed, the very considerable gains in better mutual understanding of research and administrative problems and aims, and the definite desirability of repeating such meetings at intervals of not more than five years.

The proceedings of the seminar, including the sixty-odd papers presented and the committee reports, are to be mimeographed for distribution within the Service and to others who may be especially interested in reviewing them.

THE STORY OF JOE

By W. W. Bergoffen, Bienville.

Now, as through all the days of the Forest Service, a forester has much more to deal with than just trees and the growing of timber, the construction of roads and telephone lines, the managing of fish and game, and providing for the ranging of stock on the forest. Tied up with all this is his association with individuals. In this connection I am thinking of Joe, whose last name does not matter so much since a man is truly made, not by his name but by what he is and what he does.

I have known Joe three years. He first turned up in an Alabama CCC camp and became one of my woods crew whose job it was to thin out heavy stands of pine which had sprung up on the abandoned farm lands of that country. I became interested in Joe from the start. He was a likable boy, but there was upon him a weariness and a beaten look which were hard to understand until I learned more about him.

I made it a point to cultivate his friendship, and very often during the night hours of that Alabama winter we had many talks together. It seems that Joe was one of six children of a family which lived in a large southern city and which had hard going indeed. The boy was eighteen when I first met him and he had been on his own since he was twelve. The tales he told were interesting though pathetic. For five years he had traveled by freight trains about the country, picking up a bit of occasional honest work here and there but for the most part stealing what few things were necessary to sustain him. His exterior was rough, his talk hard, but underneath it all was a softness which, as I have said before, made him likable. He returned home from his wanderings in his seventeenth year and found his family on relief. He was allowed to enroll in the CCC organization shortly after his return.

Joe had lived all his life in cities and large towns but he now found himself in the country, his work tied up with the woods. During the eight months in which he worked for me he lost much of that beaten look, his manner became softer and the weariness apparently lifted from his shoulders. He often told me, "The woods get you after 'while don't they, Mister Bill?"

I left Alabama and lost track of Joe for a year or more. Then I found him in one of the camps in Georgia. It came like a shot out of the blue as I inspected a road project. "Hey there, Mister Bill", and there was Joe, an entirely changed Joe from the one I had known in Alabama. His shoulders are set way back now, there is always a twinkle in his eye, and there are a cleanliness and a fineness about him which are very compelling. I think now that the old Joe is gone forever and I feel proud that the forest with which I work has done so much in changing this boy into the worthy citizen he is today. I always like to think of his, "The woods get you after 'while, don't they, Mister Bill?"

MAINTENANCE OF CCC TRUCK TRAILS IN VIRGINIA

By J. F. Kaylor, Washington

Since the inception of the CCC, we have all been very much interested in how we are to maintain the improvements constructed by the Corps. The Virginia State Forest Service has during the past three years demonstrated how it can maintain well constructed truck trails with a minimum amount of effort and equipment.

Since 1936 the Virginia State Legislature has appropriated approximately $25,000 annually to maintain CCC improvements. Up to the present time much of the fund has been spent in purchasing new equipment for maintaining 1,183 miles of truck trails. Such equipment as Diesel Caterpillar or Austin-Weston road patrols are purchased at a cost of approximately $5,000 each. At the present time Virginia has five such units in operation in the five forest districts. With one maintenance unit assigned to each district, the State Forester, F. C. Pederson, feels confident that truck trails for the protection of Virginia's 20,000,000 acres of forest land will be properly maintained and travelable at all times of the year.

The present maintenance crew of two men traveling from job to job use the patrol units for transportation. These units can travel 25 miles per hour on State highways to lessen the elapsed time between projects. The operator is assigned to the unit while the extra man is used in opening culverts, filling in ditches which cannot be reached with the patrol units and generally assisting the operator to secure the best use of the equipment.

The cost of operating these units in each district varies from $2,600 to $3,000 annually. This is based on the salary of $90 per month for the operator, $60 per month for the second man, plus $50 each per month for food, lodging and traveling expenses. The cost of operating the unit is very low, since it consumes only about 7 gallons of Diesel oil per day. The fuel costs, plus incidental expenses, repairs and extra labor are estimated at $1,000 annually. The expected life of the patrol unit is 10 years.

Virginia has initiated this practice of maintaining CCC improvements and has been one of the first States to demonstrate its interest in the conservation of natural resources through the maintenance of CCC improvements. This is especially true in its assuming the obligation to provide adequate fire protection by keeping its forest transportation system open during all seasons of the year.

Large industries such as coal mining in mountains in the western part of the State and sawmills or pulp mills in the tidewater of the East are very dependent on the efficiency of the State Forestry equipment manned by the personnel of its Forest Service.

A FISHING WE WOULD GO!

By E. N. Munns, Washington

I'm no shakes as a fisherman. I've used flies, grasshoppers, cut-bait, and worms. I like fishing in the abstract and I like to hear other folks' tales of the one that got away. I'm interested too in books on fishing; I've read a few. Recently in going over a list of new books my eye picked up "Trout Streams." Being interested in streams and fishing, I got said book by Doc. Needham of the Bureau of Fisheries, and boy, if you really want to know something about water, not as something that runs under bridges but as a place where troutlets live, get you this book of 230 odd pages.

Doc. talks about trout and salmon, about physical and chemical conditions of the streams, about animals living in the stream, about food selection and distribution, about propagation and stocking, and, best of all, about stream and lake management. If there was ever a book designed for the wildlifers, expecially the fish admiring variety, this is it.

And does Doc. tell us things? You fellows that let the loggers defile the brook are sure ruining your own backyard. You birds that build roads and don't properly care for your cuts and fills are driving the fish out. You engineers that are using chemicals to lay dust are killing the fish-tourist trade. You chaps that don't catch those A fires that permit overgrazing will sure have an accounting with St. Peter - remember, he was a fisherman!

FOREST OFFICERS HELP IN CAPTURE OF ESCAPED PRISONERS

(From a memorandum by Forest Supervisor Arthur A. Wood of the Monongahela Forest)

On the night of July 28, 1939, three Federal prisoners incarcerated in the Randolph County Jail, who had been convicted or pleaded guilty to Federal offenses on that date, escaped from the custody of the United States District Court for the Northern District of West Virginia. These men traversed an alley immediately back of my residence and, in attempting to secure a car for their getaway, held up and shot Mr. T. C. McClintic, one of my next door neighbors.

My proximity to the scene of the shooting enabled me to reach Mr. McClintic first and assist in administering first aid, summoning medical aid and the police. Forest Engineer E. R. Conrad and Administrative Assistant C. R. McKim, who were visiting at my home at the time, assisted me in carrying Mr. McClintic into the house. The men escaped without securing Mr. McClintic's car and were seen entering the Forest immediately east of Elkins about 10 p.m. that night.

After a conference with the State Police, it was realized that without a car, their attempt to escape would probably be over the Shavers Fork Road within the Monongahela National Forest. In the early morning of July 29, Forest Officers of the Cheat District were notified and two men detailed from the Cheat District to warn all residents of the lower Cheat between Parsons and Little Black Fork. These men were instructed to patrol the road near Little Black Fork and to observe and report on all suspicious characters traveling this road. The intersections at Little Black Fork and Stone House were guarded until the morning of July 30.

After further conference with State Police and FBI men, CCC Administrator Hertig and I made a trip over the Shavers Fork road from its intersection with Route #33 to Little Black Fork, warning and instructing the Stuart Forest Camp Administrator, and all campers and residents along Shavers Fork of Cheat River to be on guard. We endeavored to assist the State Police in their search for the desperadoes during the afternoon of July 29 by furnishing all information that could be obtained through our personnel and communication system.

On the morning of July 30, a local resident immediately west of the National Forest boundary, discovered the three men in a vegetable patch and reported their presence to the State Police. The State Police, accompanied by two FBI men, descended upon and apprehended the criminals and returned them to prison about 11:00 on the morning of July 30.

No publicity was given the activity of the Forest Service in connection with this case, since FBI and State Police were actively interested in the capture of the criminals and were responsible for their apprehension. Our cooperation was appreciated, however, as evidenced by the following letter from United States Attorney Joe V. Gibson:

"Allow me to express my appreciation for the assistance given by you to State and Federal Officers in the apprehension of DeSchauer, Pifer and Iser on Sunday morning.

"The fact that your Foresters kept these desperadoes off the forest trails contributed in no small measure to their early capture and return to prison."

FIVE ENROLLEES BURNED TO DEATH IN NEVADA FIRE

The worst forest fire tragedy in Region 4 history occurred on the Toiyabe Forest in Nevada Friday afternoon (July 28) about 6 p.m., when five enrollees, Company 1212, Paradise, Nevada, were burned to death while fighting a large brush and timber fire near the west boundary of the Santa Rosa Division. The dead are: Ernest Tippin, project assistant, 21, Oswego, Kansas; Walter James, Ridgewood, New York; Frank W. Barker, 20 Brooklyn, New York; George J. Kennedy, 22, New York City; Frank J. Vitale, 20, Brooklyn, New York. The body of the last-named victim who was first reported as missing, was found some distance away from the others at 10 o'clock Sunday morning.

Regional Forester C. N. Woods was first advised of the tragedy Saturday morning at about 11 a.m. by the Reno office. Associate Regional Forester W. B. Rice left on the first train for Winnemucca, from where he expected to conduct a thorough investigation. The several reports which he has submitted indicate that the fire, which apparently was lightning caused, started near the top of a high ridge inside of the forest boundary. In addition to several local residents and settlers who immediately proceeded to the fire which was visible from the valley, a crew was dispatched from the Paradise CCC camp and nearest DG camp. The Paradise camp crew under the supervision of a foreman was split into two squads and one placed in charge of project assistant Tippin.

At the time there was practically no wind and nothing to indicate that there was any danger in going up on the lower side of the fire. Without warning a sudden shift in the wind changed the course of the fire's progress and trapped a portion of the crew of enrollees in charge of Tippin. The wind reaching gale proportions drove the fire before it in a downhill direction at a high rate of speed and is reported to have traveled 3½ miles in 30 to 40 minutes.

Later examinations disclosed the fact that enrollee Kennedy in attempting to escape broke his ankle, and it is probable that Tippin and James in attempting to render assistance sacrificed their lives in trying to help him. All three were found close together. Vitale's body was located some distance away from the other four. He had apparently traveled faster and reached a creek bed, crossed it, and attempted to escape the fire by traveling on the opposite slope. But the fire overtook him and he perished. The bodies of the victims were brought to Winnemucca, where it is likely an inquest will be held.

Some of the local people who helped in the fire suppression work in the early stages of the fire report that at the time of the sudden wind shift and its increase to gale proportions, they had extreme difficulty in getting away and into safe territory. Frank Gabica, who went to the fire on horseback, when forced to retreat from the advancing flames had to let his horse go and get into a car on the highway to escape.

The fire was controlled late Saturday afternoon after burning approximately 8,000 acres, of which one-half is inside of the Santa Rosa unit. Mr. Roy Headley, in charge of the Washington Office Division of Fire Control, telephoned Regional Forester Woods this morning that he was flying to Reno, from where he will be taken to the scene of the fire for a continued joint investigation with Supervisor McQueen and Mr. Rice. (R-4 "Daily News", July 31)

MORE USES FOR WOOD

By Marguerite McGuire, Washington

I visited the luggage department of one of our Washington stores the other day and found an assortment of various-sized suitcases, bags, and what-you-carry all made of lumber! Thin sheets of plywood, well matched and polished, cover the foundation of the article, with the edges strongly bound and stitched in leather. They are very good-looking and light in weight. A salesman assured me that they are durable, and that the wood has been treated against the invasion of termites.

A loyal Forest Service lady, off for a vacation, might also pack her wooden suitcases with wooden clothes. They are being made! A recent fashion news reel showed beautiful dresses made from wood fiber, bamboo, and swamp grasses; and what is more stylish for the beach than a pair of wooden shoes?

(Girls, might we yet be Dryads?)

OCALA BASKS IN REFLECTED GLORY

By Edwin G. Thurlow, Florida National Forests

The Ocala National Forest recently has been gratifyingly subjected to the reflected glory bestowed on one of its famous residents. Recent announcement that Mrs. Marjorie Rawlings has been awarded the coveted 1939 Pulitzer prize for her delightful book "The Yearling" has stimulated renewed public interest in the Ocala and its characteristic "Big Scrub" residents.

Hollywood moving picture technicians have visited the Forest with a view to producing a picture based on "The Yearling" and several of the old homesteads which were formerly inhabited by characters of the book and which are now Government owned were being considered in connection with the picture. Latest reports have it that Hollywood moving picture machines will start clicking in the "Big Scrub" in November. ("The Dixie Ranger")

THE EDITOR DISCOVERS

President Roosevelt on July 7 designated Rear Admiral Richard E. Byrd, U. S. N., Ret., to serve as Commanding Officer of the expedition which is to make an investigation and survey of the natural resources of the land and sea areas of the Antarctic Regions, and a committee has been formed for the purpose of organizing, directing, and coordinating the conduct of the survey.

In response to a request for data regarding the wiring arrangements of Forest Service sets for use in developing sets for the expedition, the Radio Laboratory at Portland has sent directly to the expedition headquarters at Navy Yard, Boston, Massachusetts, photographs and schematic diagrams of several types of portable and semi-portable radiophones developed by the Laboratory, together with a copy of the Forest Service Radio Handbook.

- - - - - - -

Gifford Pinchot writes from Milford, Pennsylvania, where he is spending the summer:

"I am delighted to tell you I am getting on fine and expect to be back on the job completely by fall. The flowers you sent me from the Forest Service started me right."

- - - - - - -

President Roosevelt, on July 25, 1939, signed an Executive Order establishing 42,663 acres of land in north central Arizona, with the prehistoric ruins thereon, as the Tuzigoot National Monument. A recent press release by the National Park Service describes the new Monument as follows:

"Tuzigoot Ruin is unique. Here are presented evidences of three different cultural groups, comprising varying prehistoric populations who entered the community from regions to the north, south, and west, occupying the place simultaneously, yet as separate groups. Each has left clear evidences of its occupation in concrete form.

"The ruin is situated on a ridge about 120 feet above the Verde River, near Clarksdale, and forms a rambling pueblo group. No general plan for the entire pueblo is apparent; rather each unit has been individually designed, though much changing and rebuilding of the rooms seem to have gone on during the several centuries of Tuzigoot's occupation."

- - - - - - -

Besse B. Day, Associate Statistician of the Division of Forest Economics, sailed from New York on August 5, in order to represent the Forest Service at the International Genetical Congress which opens August 23 at Edinburgh, Scotland.

Miss Day will present a paper, in joint authorship with Lloyd Austin of the California Forest and Range Experiment Station, on "Use of the three-dimensional quasi-factorial design for testing a large number of Pinus Ponderosa progenies." This paper will deal with results obtained from a study involving the first large-scale application to forest research of one of the new experimental incomplete block designs.

After adjournment of the Congress, Miss Day will spend some time in the Scandinavian countries, investigating forestry research activities that emphasize the use of mathematical-statistical tools. Following this, she will go to England and spend several weeks at the Galton Laboratory consulting with Professor R. A. Fisher on research problems of forest economics.

WIND TUNNEL IS USED TO CLASSIFY SOIL AND SAND

It is common enough to think of wind tunnels as useful for study of better streamlining for airplanes, new high speed trains and fast motor cars. But did you know that scientists are now using wind tunnels to classify sand and soils as to the size of the particles in them?

In Pasadena, at the California Institute of Technology, scientists of the U. S. Soil Conservation Service and the Institute operate a wind tunnel for just this purpose and obtain a better separation of particles by size than they can do with ordinary sieves. Moreover, the method works better for the finer particle sizes; the place where sieves fail to yield best results.

The Caltech device sucks a stream of air through a twelve-foot tunnel. At the intake end the soil and sand mixture flows down into the air stream and is caught in the air currents. Heavy, larger particles fall quickly and are caught in special trays near the tunnel's entrance. The finer particles float more easily, travel farther and the finest the greatest distance of all.

Twenty different trays catch various particle sizes. The finest size corresponds to particles that can only pass through 250 mesh sieve. They have an average diameter of seven hundredths of a millimeter, or about 27 ten-thousandths of an inch.

Determining the particle size of soils and sands is an important fact needed for studies of soil erosion and conservation, either by wind erosion as in dust storms or in erosion by water. The size of particles, too, is important in studying the silting of lakes and water stored behind dams.

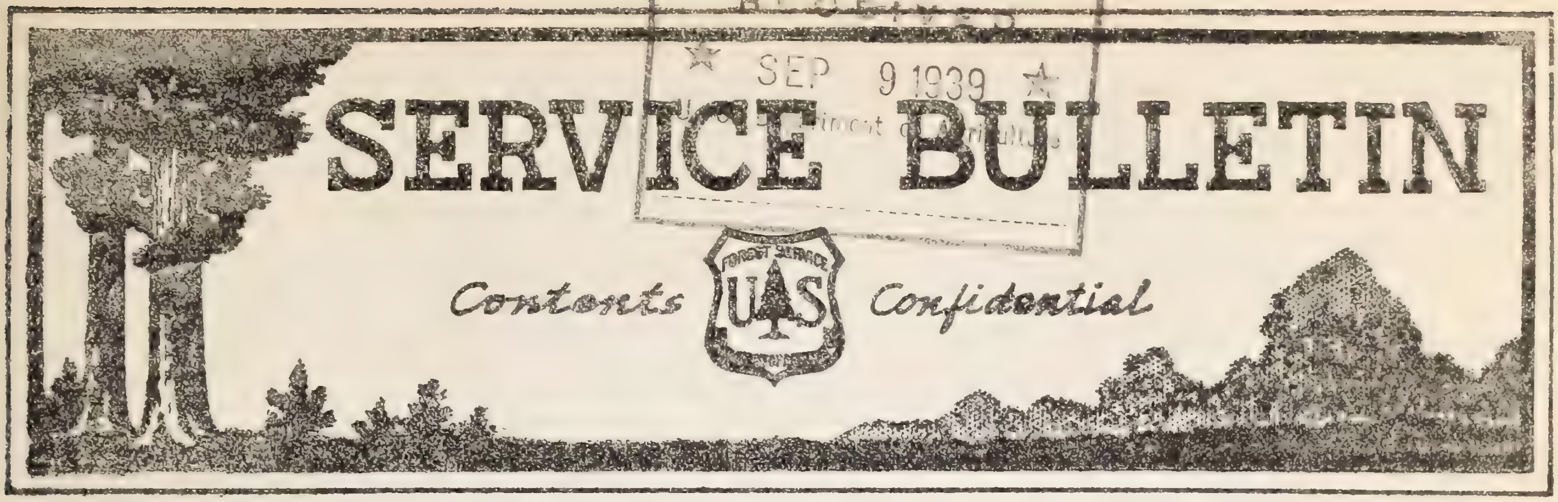
The Caltech device brings a new technique into the field which provides accurate data with a low cost for apparatus was built for about $50 and requires only one laborer to operate it.

George H. Otto and Hunter Rouse, assistant geologist and associate hydraulic engineer at the laboratory, describe the new wind tunnel method in the current issue of Civil Engineering, journal of the American Society of Civil Engineers. (Science News Letter, July 22, 1939.)

LUCKY FISHERMEN

The problem of stocking mountain lakes in the Northwest, inaccessible except by footpath or perhaps burro, is being solved by the State of Washington with an airplane. These hundreds of lakes have lacked only fish to make them the vacationers' paradise. Now Washington State's Game Department has equipped a plane to drop newly hatched fish in small cans of water tied to parachutes while flying over these lakes. Of course, few of the parachutes and cans are recovered but the fish are transplanted which is the main object. Blocks of wood fastened to the bottom of the cans cause them to turn over on striking the water so all the baby fish have to do is just to "fim" out. Another positive reminder we were "born thirty years too soon" is the concern government of today shows for fishermen by stocking every body of water of any size with members of the finny tribe just for the angler's pleasure. - "Capital," Topeka, Kansas. July 6, 1939.

LIBRARY
RECEIVED
★ SEP 9 1939 ★
U.S. Department of Agriculture



SERVICE BULLETIN

Contents Confidential

Vol. XXIII No. 18 Washington, D. C. September 4, 1939

KEY POSITION TRAINING

By Peter Keplinger, Washington

In planning a training program one must first have an objective; one must decide where he wants to go before he plans how. This applies particularly to the training of key men in either line or staff, but the training I am about to describe concerns primarily the line --Rangers, Supervisors, Regional Foresters. Do we want in these positions routine minded executives who know how things should be done and who can and will turn out the work, or do we want them filled with "inquiring minds" concerned with the solution of problems and questions pertaining to the relation of the resource they manage to human welfare? Men can be trained for either function, but the training process is as different as is the result desired.

Realizing that forest problems instead of being solved are just beginning to be recognized, Region 5 decided that it needed most the creative type that could see new needs and plan new ways to meet new situations. It accordingly planned a training course with two, shall I say, new objectives: First, it wanted to discover men with a tendency toward independent creative thinking, and, second, it wanted to give these men some new patterns or guides that would help them to develop their creative tendency, and to direct their new thinking into constructive channels.

A year ago I visited the section of this "Advance Training Course" that is given at Berkeley. I found their method to be something as follows: The men were first given some intensive training in the principles of organization with particular emphasis on the idea that organization is not an end but a tool: a planned subdivision of the work necessary to reach an objective; that, first, the work must be determined and, last, how it will be subdivided. Too often beginners in organization plan their divisions first and then find some work for each division to do.

The class was next given a map of an area of a million or so acres, told that this area was to be put under administration as a public forest, and given the objective that it was hoped the administration would accomplish. Also a great deal of statistical information was furnished. Each man then independently planned an organization to take over the area and accomplish the objective.

If a man copies quite closely the organization of the Forest from which he came, this is considered an indicator that he is not an original thinker, capable of meeting new problems in new ways. But he still has another chance.

The group is given also intensive training in the techniques of making administrative decisions. Each man in turn then acts as leader in the consideration of a resource, and a number of the more important administrative decisions necessary in putting the area under administration are made. Here again the men have an opportunity to show their originality as well as their skill in the manipulation of the various steps of the technique. The men who cling to old methods may make good executives but not good administrators. For both types there are many things in the training that are of value; this short statement covers only the high lights.

FORESTRY IN COUNTY PLANNING

By Harold A. Vogel, Bureau of Agricultural Economics

The land use planning approach to the problems of agriculture, upon which county planning is based, is something new under the agricultural sun -- a changing plan of attack in which foresters, side by side with others who have to deal with land use in relation to general agricultural problems, will play a vital role.

What, then, will be the role of forestry in county planning?

Perhaps the best way to answer this question is to take a brief look at the county land use planning program, and at the causes that brought it into being.

A few years ago it became clear that the Government's role in improving agricultural welfare must necessarily consist of something more than research and education. The closing of our frontiers, the curtailment of American farm exports, the pay-off on the frantic exploitation of the soil in earlier years, the rise of machine agriculture, the decrease in opportunities in the city, and the concomitant increase in migration from cities to farms -- these and other problems led to a national emergency.

Called upon to act directly for farm welfare, the Department undertook to administer programs dealing with soil conservation, surplus removal, public land acquisition, crop insurance, flood control, farm forestry, credit deficiencies, the rehabilitation of low income farm families, roads, farm income, and a host of related problems.

Obviously, these programs required correlation in order to make sense not only among themselves but also in relation to local and State problems. A good deal has been done by the Department along this line, but it has been its experience that the logical correlating agent is not the technician but the farmer himself, working with the help of the technician. And it is through the development of active farmer land use planning committees in every agricultural county in the United States-which is the core of the county land use planning program - that the Department hopes to give the farmer a decisive voice in planning.

County land use planning committees consist of at least ten farm people, together with forest owners in areas where forestry is important, and representatives of each State and Federal agency administering agricultural land use programs in the county. Farmer membership constitutes a substantial majority and a farmer acts as chairman. The composition of these committees of farmers and government representatives is designed to develop a "two-way channel" for the planning of agricultural programs. It provides a means whereby the development of national land use programs and agricultural policies may benefit from the practical knowledge and experience of farm people and whereby the technical information and counsel of specialists can be provided to farmers to bring about solutions of their local problems.

Community committees are organized as sub-committees of county planning committees and perform much of the detailed planning work in the counties. State Land Use Planning Committees review and correlate the work of county committees, and provide guidance and assistance in the furtherance of this work. And in order to create a direct channel from the farmers to the Secretary of Agriculture in Washington, the Department itself has been reorganized, with the Bureau of Agricultural Economics designated as its central planning agency. This organization for planning provides for blending the point of view of the administrator, the farmer and the technician in the determination of plans for public, individual and group action.

The county committee's job, for the next year or so, is to classify land in the county according to its proper use, and to make recommendations for improvements in land use, local institutions, and conditions for rural living. The recommendations range from those that can be carried out locally to those requiring action on State and National levels. The committee also will serve as a clearing house and advisory council in the county for all the Federal agricultural programs that are at work there. And where changes in present programs or additional programs are needed, the committee will begin the initial steps that lead to action.

"Intensive" work had been undertaken in about 450 counties before July 1, 1939, and will be started in at least this many more in 1939-40. "Unified" programs will be undertaken in at least one county in each State this year, with the immediate goal of devising one or more specific lines of action which can be inaugurated early in 1940.

In the "intensive" counties, to use the terminology of the county planning project, planning committees make land classification maps showing the most desirable major uses to which land in the different areas in their counties should be put. All available technical data, maps, statistics, farm management studies, and other material relating to this work are made available to these committees. They also have the benefit of the advice and consultation of Government and college administrators and technicians. A written report is prepared to accompany the map. The report indicates the various land use adjustments needed to put each area to its most desirable use.

"Unified"county programs are developed after the intensive planning work has been completed. In the "unified" counties, the planning committees make specific recommendations for action under existing programs that will help farmers and forest owners make these adjustments, and recommendations for new programs where legislative restrictions do not allow needed action to be taken under existing programs.

And already the voice of the farmer is being heard through the county planning committees. Beginning to arrive in Washington are farmer-drawn recommendations from which it is possible to foresee the great amount of attention county committees are likely to give subjects directly concerning the interests of the Forest Service. Let us look at a few of these sets of proposals, starting off with the recommendations of the Sonoma County, California, committee.

The Sonoma County committee recommended the preservation of the remaining virgin stands of redwood timber in the county, and to that end the acquisition by the Government at a reasonable cost of a designated area as a part of the proposed Mendocino Coast Recreational Forest.

The importance of Sonoma County's timber and brush-covered areas for recreational purposes and in preventing too rapid run-off of rainfall, the committee felt, renders fire control of vital significance. It therefore urged the extended use of CCC workmen in building roads through these areas and for fire suppression.

No less specific are the recommendations of interest to foresters that have emerged in the tentative suggestions from Culpeper County, Virginia. Some of the features of the tentative program which have been suggested are: (1) that a definite proposal be prepared for a forest-purchase area in the eastern end of the county to be combined with similar tracts from Prince William, Stafford, Spotsylvania, Orange, Louisa and Fluvanna counties in a large State or Federal forestry program; (2) that provision be made for technical advice and guidance to farm operators in more advantageous management of farm woodlots; (3) that game preserves and recreational facilities be provided in the forest-purchase area and in other sections of the county sufficient to provide for the needs of the people of the county and possibly to provide a source of income from those outside the county who come to hunt or camp; (4) that a CCC camp be secured for the county to work on forestry, soil conservation, and game protection; (5) that one forester be made available for "extensive service" in the county during the coming year.

In Boone County, Nebraska, the county committee recommended to the State Land Use Planning Committee a number of practices for soil and moisture conservation, including the planting of trees in gulleys and in shelterbelts in the sandy areas identified by the county committee on their land classification map. Next, the community committees will undertake to work out more specifically in these sandy areas the details of securing appropriate action in line with county committee recommendations. Technical assistance will also be sought to aid the community committeemen in their undertaking.

These counties are showing that the old way of having agricultural programs formulated solely by technicians is on the way out. They are demonstrating the new way — the democratic way of farmer cooperation with technicians and administrators in planning, whether local, State, or National. And it is the job of foresters, together with everyone else engaged in working with farmers and their problems, to participate in this planning process and in translating farmers' plans into action.

Under the proposed lines of action developed for the Cooperative Farm Forestry Act, it should be possible for the counties to profit in their land use planning by taking advantage of farm forestry demonstration units in the forestry phase of their work.

HEROES OF THE CCC

(From the "Daily Sentinel," Grand Junction, Colo.)

The Salt Lake Telegram, in the course of an impressive tribute to five CCC boys, burned to death while fighting a Nevada forest fire, makes some comments that deserve to be widely read. With full endorsement of the tribute paid to these boys and to the CCC in general, we reproduce a portion of the Telegram's editorial.

"None of these five fire victims was a westerner. Four were from New York, one from Kansas. Yet they gave their lives in the broad service which the CCC is performing for the West -- saving timber and watersheds from ravages of fire; conserving and rebuilding our forests; restoring range lands; preventing soil erosion and water waste; building roads and recreational areas. It is a little too easy for us in the West to accept the service of the CCC as a matter of course.

"Many a westerner's home and land have been saved from destruction by brave CCC fire-fighters. It is OUR natural resources of forest, land, and water that are being conserved and protected by the three C's. It is WE who will enjoy the recreational areas they open up and improve.

"The death of these five youths brings home to us in a tragic but forceful manner the value of the service of the CCC. Even at the cost of their hopeful young lives, they are safeguarding and building the West. And, despite their rough clothing, they're just boys -- a long way from home, a little lonely at times, a little reckless and exuberant at times -- but still just boys, with a boy's innate courage and bravado, and ready welcome for a kindly word of praise and encouragement or a friendly smile.

"Next time you see some of the three C's you might remember that five of their fellows died rather horribly fighting a fire for YOU. Maybe you'll see them through new eyes."

FIREBREAKS IN STATE FOREST AREAS

By Edward Ritter, R. 7

The term firebreak is often associated with natural barriers such as open ridge tops, rock slides, streams, lakes, etc. Artificial or man-made barriers which may serve as firebreaks may be fire lanes, cultivated fields, roads, trails, and other developments which are void of inflammable material. In a hardwood type the fire fighter may rely on virgin forest cover to stop the big run of a fire.

How effective are artificial firebreaks and what value is received from investment in lines constructed especially for that purpose? The answer is partially in terms of acres, volume, young growth, soil, and other more or less tangible values saved which if converted to dollars and cents would mount up to a considerable sum. But is there not a limit beyond which construction of firebreaks will yield small returns on the investment? Original construction is a big item, but maintenance is not to be overlooked.

During the past twelve months artificial firebreaks have been observed in several States of the Eastern Region. (No reference is made to States affected by the hurricane of 1938). Some of these are merely narrow trails dug to expose mineral soil for a width of two feet, dead material and brush cleared for a width of eight or ten feet, but no green trees over three inches d.b.h. removed. Others noted were dug to mineral soil for a width of 4½ to 6 feet, brush cleared for 30 feet, resulting in a wide lane resembling a wagon road. Still others were 100 to 150 feet in width, plowed for the entire width, and harrowed or disked annually or periodically as a maintenance measure.

Where investments such as summer homes, recreational areas, plantations, municipal water supplies, etc., are involved, the need for outstanding protective measures is not questioned.

But to construct firebreaks promiscuously throughout a forest area as a protective measure and possibly as a means of keeping CCC and W.P.A. employees busy would appear to be poor planning.

Examples of boundary line work were observed recently, many miles of it, which included bare-soiling for a width of 4½ to 6 feet, occasionally knapping stone where soil was absent, clearing a protection strip, and painting lines and corners. This was termed fire hazard reduction work by one agency and boundary work by another. One hundred man days per mile were utilized on one 17-mile section.

Some States have set up an arbitrary figure for the number of miles of road necessary for adequate protection. This ranges from one to three miles per thousand acres of forest land. The job of maintenance on these roads, if and when the entire responsibility is turned over to the States, will be an almost insurmountable task. To lessen the expense to some extent, why not consider the roads as adequate firebreaks and forget about constructing artificial firebreaks as such, with justifiable exceptions, thus eliminating an additional maintenance load which is already too burdensome to carry?

HOW ABOUT RANGER HEADQUARTERS?

By H. N. Wheeler, Washington

In the horse and buggy, pack horse, and hiking days of the Forest Service it was necessary that Forest Ranger headquarters be located inside the Ranger District and sometimes in the middle of it, even though in an isolated place. In those early days some Rangers had no permanent abiding place, but traveled by pack horse from place to place over their districts, scaling timber, inspecting grazing areas, and attending to other routine business. The outside contacts were few and in general not necessary. Telephone lines were constructed, new roads built and old ones improved, and the populace began to get into the forests. There were always a few visitors, but as roads improved and the beauties of the forest became known the tourist travel increased tremendously. The calls upon the Ranger's time for outside contacts increased.

In the early days the Ranger was a single man, having been previously employed on a ranch, at a sawmill, or living on a homestead. As time passed he became a family man and the $500 shack the Government built for him no longer satisfied. He therefore moved to town or a nearby settlement and rented a place, or, in many cases, still lived in the same isolated spot.

Now Ranger headquarters are being built complete in every detail. The Rangers are mostly family men with children coming on to school age or ready for college. The roads to many stations even out in the forest are excellent. Some are not so good. In general, it is fairly easy to drive from the Ranger Station to the nearby settlement or town for supplies and meet with individuals and interested groups and discuss the forest problems. In other words, do public relations work. But those roads are just as easy for the Ranger to travel from town to his work as to go from his district to the town. Furthermore, he can frequently reach some other part of his district easier and with less mileage from town than from the station. Some Forest Officers, even Rangers, insist that the headquarters must be right on the district no matter how isolated. Those advocates usually are not sold on public relations activities or far underrate public relations values and possibilities in selling forestry to the public. A Ranger located in the community or town becomes a part of that community. He belongs to a club, has access to the library, possibly is a member of the church, and perhaps teaches Sunday school. There are other Government and State employees with whom he associates and exchanges ideas. He daily contacts men in business and professional lines and exchanges ideas. His wife can go to church, to ladies' aid, and to a club. His children have a chance at schooling. It may be said that the wife and children can get to town from the Ranger station. Yes, but who is going to drive 50 or 60 miles, or more, in all kinds of weather even for concerts and plays, to say nothing of church and club work. It is said that his family is no worse off than the farmer's family. It is not at all comparable. The farmer's wife has a local phone, has neighbors, and is near to social and church activities. If we must have isolated Ranger stations, let us make them as comfortable as possible, and then station there only single men or newly married Rangers. The argument is used that it costs too much in travel if the Ranger is located in town. Which is the more desirable way, in these days of the humanitarian method of handling employees in industry and in the Government service, to have the Government spend more money in travel to do the work, or to have the Ranger do all the spending if he is to have a chance for social and educational improvement? This, too, when it is really to the best interests of the Government for the Ranger to be located in the town or country and to have daily contact with his neighbors.

Of course, when necessary, the Ranger can go onto his district and stay there as many days as necessary to attend to his work. His family will get on very well in town. If living on the district he will try to return home every night and will therefore do a lot of traveling back and forth and will neglect some of his contacts with those living in his district. If called into the office for a few days he must leave his family at the isolated station or bring them to town at heavy personal expense. Should not the Forest Service treat its men as considerately as industry and as other Government agencies do?

NEW CONSERVATION BOOK

By W. P. Beard, Washington

"Conservation in the United States" by Gustafson, Ries, Guise, and Hamilton, members of the faculty of Cornell University, is one of the more recent of the current crop of general conservation books. "This volume," according to the authors, "is intended as a non-technical presentation for the purpose of acquainting students and other interested readers with important facts concerning conservation of natural resources in the United States." The book is adapted to use in high schools and teachers colleges.

The introduction gives a brief resume of the rise of the conservation movement. A later chapter adds to this and indicates that this movement originated in forestry. The usual East to West, then to now, device is used.

The volume is divided into four parts, the first having to do with conservation of soil and water resources, the second, with forests, parks and grazing land, the third, with wildlife, and the fourth, with mineral resources. It is well illustrated with pictures and graphs, and contains a number of very useful tables. The style of writing is simple and clear. Exact problems are isolated and definite solutions proposed.

The loss of plant nutrients due to erosion is strikingly stated, "....this quantity of phosphorous is equivalent to that in six million tons of phosphatic fertilizer such as 20 percent superphosphate. It would take 3,000 trains of 70 cars each, every car containing 25 tons of superphosphate, to carry as much phosphorous as is lost by erosion every crop year."

Foresters and agricultural engineers might question this statement, "When the oil supply becomes depleted, however, or the price of it too high, a return to the use of animal power may take place. Lands retired to forests can then be brought back into the production of feed for horses and mules."

A question often asked but seldom included in erosion literature is answered, namely, why the soils in different parts of the United States erode differently, particularly why most southern soils erode more than northern soils. A picture showing the benefits of a shelterbelt in protecting crops from wind erosion surprises one when he finds that it is from New York State rather than the Prairie regions.

It is interesting to note that three of the writers emphasize the calamity that is to occur sometime in the future, but the author of the forestry material emphasizes the present day plight of people living in cut-over and abused forest areas. Might this indicate that people in the field of forestry have passed through a preliminary stage of conservation and realize that the dire results are with us now?

The material on wildlife presents the problem as one of natural balance and in an interesting manner. However, it is rather disturbing to note that the Forest Service is not listed among the Federal agencies having to do with wildlife management and that the National Association of Audubon Societies is the only national organization listed as being interested in this field. The feeding of wildlife is proposed with inadequate discussion of the attendant difficulties. Forest Service experience in grazing has also been omitted.

BIG GAME CONTROLS

Region Four occupies a conspicuous place on the map of National Forest game controls in the quotation below from an informational letter to the Chief under date of August 10. The Region has our best bow and curtsy for a conspicuous achievement, the progressive signs of which we have been observing with keen interest and hearty approval. - J. H. Hatton.

"Utah's Board of Big Game Control met at the State Capitol, Salt Lake City, on August 3 and 4. The board is composed of the Fish and Game Commissioner who acts as chairman and one member each from the State Wildlife Federation, the State Woolgrowers' Association, the State Cattle and Horse Growers' Association, and the Forest Service. The five members are appointed by the Governor. The first day of the meeting was devoted to a discussion of deer and elk problems with game wardens and four invited Forest Supervisors. On the following day, a public meeting was held, attended by about 250 sportsmen, stockmen and private land owners who were given an opportunity to express their problems, opinions, and make recommendations as to what action should be taken.

"Following the public hearing, the Board went into private session and determined the number of doe deer and elk to be removed through hunting from each over-populated game herd in the State. Their decisions were based to some extent on public sentiment but primarily on the written reports and recommendations of the two investigators, a game warden and a Forest Officer, who reported range conditions, carrying capacity, number of game animals, expected increase, conflict with private lands and livestock, and suggested specific numbers for removal.

"The Board's final decision was to remove 10,700 doe deer from certain defined overstocked game ranges on the National Forests of Utah; 1,000 from the Cache; 900 from the Manti; 6,000 from the Fishlake; 2,400 from the Dixie; and 400 from the Wasatch. In addition, the Board authorized the taking of 785 elk, both sexes: 140 from the Cache, 300 from the Manti, 275 from the Uinta, 10 from the Wasatch and 60 from the Fishlake.

"Doe permits will be sold at the checking stations for each area to be hunted at $1.50 each to residents with regular hunting license or $3 without, to non-residents for $2.50 with big game hunting license or $20 without. Elk permits at $10 each will be sold to residents and at $50 to non-residents. The doe season will run concurrent with the buck season, October 21 to 31, both dates inclusive.

"It is confidently expected that all of the special doe and elk permits will be sold and the removals made, as the sportsmen are backing the control program where needed. In fact, the recommendations of the local wildlife federations as well as those from stockmen and land owners, were usually quite in harmony with the numbers approved by the board. If the desired removals are not made, the Board on November 10 will meet and discuss what further action shall be taken.

"Anyone attending the public meeting of August 4 this year would have been impressed with the marked difference in the attitude of the wildlife groups now as compared with the sentiment 3 or 4 years ago when strong opposition was expressed against the killing of any female deer whatsoever. It has only been since 1934 that Utah laws permitted the killing of any female deer in the State."

ARTICLES BY MEMBERS OF FOREST SERVICE APPEARING IN OUTSIDE PUBLICATIONS

Compiled by Washington Office Library

BROWN, A. A., and DAVIS, W. S. A fire danger meter for the Rocky mountain region. charts. Jour. Forestry 37(7): 552-558. July 1939.

BULL, HENRY. Loblolly pine versus cotton: a comparison of annual cellulose production per acre. tables. Jour. Forestry 37(7): 570-571. July 1939.

CAMPBELL, J. F. Servicing fire crews by airplane. Jour. Forestry 37(7): 531-538. July 1939.

COLLET, M. H. The slope scale. diagr. Jour. Forestry 37(7): 580-581. July 1939.

FOX, G. D., and KRUSE, G. W. A yield table for well-stocked stands of black spruce in northeastern Minnesota. tables. Jour. Forestry 37(7): 565-567. July 1939.

HALL, J. A. The slab pile and logging waste. Jour. Forestry 37(7): 528-530. July 1939.

JOHNSON, F. R. The National forests and the Mountain club. Trail and Timberline. (245): 55-56. May 1939.

LENTZ, G. H. Second-growth pine to sustain Southern pulp and paper industry. South. Pulp and Paper Jour. 2(1): 15. June 1939.

LIEFELD, T. A. Marking and numbering trees with paint in stick form. illus. Jour. Forestry 37(7): 584-585. July 1939.

MATTOON, W. R. Swamp black gum or what? Jour. Forestry 37(7): 582. July 1939.

MINCKLER, L. S. Genetics in forestry. "Literature cited"; p. 563-564. Jour. Forestry 37(7): 559-564. July 1939.

PAUL, B. H. Shrinkage of white oak as affected by position in the tree. chart. Jour. Forestry 37(7): 572-573. July 1939.

REYNOLDS, R. R. Improvement cuttings in shortleaf and loblolly pine. Jour. Forestry 37(7): 568-570. July 1939.

RIGHTER, F. I. A simple method of making germination tests of pine pollen. illus. Jour. Forestry 37(7): 574-576. July 1939.

SHIRLEY, H. L. The growth and nutrition of white pine (Pinus strobus L.) seedlings in cultures with varying nitrogen, phosphorous, potassium and calcium, by H. L. Mitchell. Black rock forest bul. 9. 135p. illus. Cornwall-on-the-Hudson. N. Y. 1939. (Book review). Jour. Forestry 37(7): 587-588. July 1939.

______ and MEULI, L. J. The influence of soil nutrients on drought resistance of two-year-old red pine. tables. "Literature cited"; p. 359-360. Amer. Jour. Bot. 26(6): 355-360. June 1939.

SHOEMAKER, LEN. Easterners ride the sky trails. illus. Rocky Mt. Sportsman 3(2): 20-21, 42-43. July 1939.

SILCOX, F. A. A forest program and a plan of action. Extension Serv. Rev. 10(7): 102. July 1939.

STOCKWELL, W. P. Preembryonic selection in the pines. diagrs. "Literature cited": p. 543. Jour. Forestry 37(7): 541-543. July 1939.

WINSLOW, C. P. Research in America. Wood 4(6): 253-255. June 1939.

RADIO COMMENTATOR GIVES VIVID PICTURE OF FOREST FIRES

In a broadcast over a coast-to-coast hook-up of the Mutual Broadcasting System on August 10, Fulton Lewis, Jr., nationally-known news commentator, made the following remarks regarding forest fires:

"Now there's bad news, tonight, from the Far West - and it's news that falls on the doorstep of Congress. So far, the newspapers don't seem to have awakened to the fact, because I've seen nothing about it in print -- at least, not in the newspapers here in the East. But tonight, three very bad forest fires are raging out in the Northwest; two of them in the State of Washington and one in Oregon. And that third one is one of the worst fires the country has known in many years.

"You may remember, the famous Tillamook fire, in Oregon, back in 1933. It swept over 10 townships and 267 thousand acres of timberland; it wiped out villages and towns and railroads, and killed every living thing in that entire area, with a total damage of 350 MILLION dollars. I don't know whether you've ever seen a forest fire, but they're terrible, TERRIBLE things. You walk through the charred ruins, afterward, and it chills your blood; all the fish in the streams dead, the charred bodies of deer and small game everywhere, not a bird to be found - mile after mile of it; tens of thousands of massive trees which took sixty or eighty or a hundred years to grow, turned into charred stubble, in just a few hours, by one little spark.

"In the case of that Tillamook fire, two-thirds of the area was virgin timber -- and it originated by the friction of a steel cable -- rubbing against the side of a tree -- in course of lumbering operations. Since that time, those 270 thousand acres have begun to come back; the young growth has started again; the game and the fish and the birds have come in from the outside.

"But this afternoon, the Federal Forest Service here in Washington received a telegram that the same old scourge of fire is at work, again, and this time -- the report said -- the fire is worse than it was in 1933. It not only will cover that same 270 thousand acres, but it also will go beyond those original boundaries, into MORE virgin timber. As for the other two, in the State of Washington, one is in the Columbia National Forest and the other in the Olympic National Forest. Both of them are completely out of control. The one in Columbia has destroyed 4,000 acres of timber already, and the other one has destroyed 3 thousand acres. The woods are as dry as tinder. The winds are high. And there's no telling how far they may go. And these are only the newest outbreaks in the Western forests. Last week there was another fire in Nevada, in which five men lost their lives.

"And perhaps you're wondering why all this comes back to the doorstep of Congress. Well, that's quite simple. Fifteen years ago, Congress passed a law, called the Clarke-McNary Act. That law authorized Congress to appropriate, every year from that time on, the sum of 2½ million dollars, to cooperate with the forest services of the various States in the prevention of fires. In all of these 15 years, Congress has never appropriated that full amount of 2½ million dollars. Year before last, it was only about ONE and a half million. Last year it was an even TWO million. This year, the Senate approved the full amount, but the House of Representatives insisted upon economy. They'd voted 500 million dollars, to pay farmers to take land out of production, and plant trees to conserve natural resources. They've voted hundreds of millions for the C.C.C., to plant forests that have been burned over in the past. They voted a billion and a half for WPA -- part of which is to be used in forest work. They voted hundreds of millions for flood control, to take care of the water that pours down the barren sides of hills, because the trees are gone and there's nothing to hold the water.

"And after spending all those billions, it was necessary to economize. They have to be careful about spending the tax-payers' money, you know -- so they saved 300 thousand dollars, on this appropriation, to help save the forests that we already have. And as irony would have it, this Tillamook fire, that's raging tonight, is on the very type of land that this extra 300 thousand dollars was to be spent.

"I might add, by the way, that the forestry experts agree, almost unanimously, that even the full 2½ million dollars a year is far less than is needed to give sound, adequate protection. The estimates agree, in general, that the forests of the country can be properly protected from fire, for 18 million dollars a year; that means 9 million from the Federal Government, and 9 million from the States.

"But we must have economy. Sometime ago, one of the Congressmen who made these reductions explained to me that the day of forest fires is over; we don't have them any more. He came from one of the largest cities of the Middle West.

"And that may be true, but whatever this is that's going on in the forests of Washington and Oregon tonight, it's doing terrific damage, and it's costing hundreds of millions of dollars."

Outstanding among the comments aroused by Mr. Lewis' talk was the following air-mail letter from Hoquiam, Washington:

"Mr. Fulton Lewis Jr:

"Pal I dont know who in_____you are, but I want to go on record right now by saying that you shore said a mouth full on your broadcast to night. You, from your talk have no doubt went through a fire or so, I have, and I want to tell you that it is one of the____awfulest things that a man can witness.

"Just think of a vicious serring giant reaching out with arms of flame that can stretch for a mile or more and licking up everything in its path. That mister is sompething. I flew fire patrol on a fire in Oregon two years ago, and that fire took the town of Bannock and literly sent it up in smoke. I have seen men traped and burnt to a crisp in less time than it takes to tell this. I have seen wild game racing through the timber terror in every line of them, trees 400 years old explode with flame and destroyed in thirty minutes. And right now the fire on the Olympic pensula that you just mentioned is knocking at my back door; ___, if I could only have a few of those lunk heads back their in congress out here for about ten minutes, I bet I could sure make them sing a louder song for forest fire protection. Right now the flames are coloring the sky a blood red, smoke is so dam thick I can hardly see to work this blasted thing. By profession I am a writer even tho my work on a typewriter dosent look like it, and brother, could I go to town on a story of this kind, the only thing no one would buy it, so why try.

"Well, you will no doubt get panned, from one end of Washington to another for blasting loose like you did to night, but more power to you keep it up."

FIRE FIGHTERS MEMORIAL

A Fire Fighters' Memorial, erected in honor of the fifteen men who lost their lives in the Blackwater fire on the Shoshone National Forest, was dedicated August 20, the second anniversary of the fire. The Memorial is located at the junction of Blackwater Creek and the north fork of the Shoshone River. It is adjacent to the Cody-Yellowstone Road on U. S. #20, thirty-six miles west of Cody, in the Shoshone National Forest.

The monument was constructed by the Civilian Conservation Corps during the past year. It is a massive stone structure, with an over-all length of seventy-one feet. Steps lead up to the monument proper, which is forty-three feet in length and rises slightly over six feet above the ground line. The monument is of natural stone, trimmed to random pattern, and twelve feet in width. An inscription on terra cotta, set in to one course of stone which runs practically the full length of the monument, gives the names of all who lost their lives. At either end of the terra cotta are bronze seals of the Forest Service, United States Department of Agriculture, and the Civilian Conservation Corps.

On the rear of the monument is a bronze plaque four by two feet in dimension, on which is inscribed the following description of the fire:

> SHOSHONE NATIONAL FOREST
> BLACKWATER FIRE AUGUST 20-24, 1937
>
> This marks the beginning of the Fire Fighters Memorial Trail which follows Blackwater Creek five miles to the place of origin of the fire, and thence to other points of interest. This fire was controlled after burning over 1254 acres of forest. Fifteen fire fighters lost their lives and thirty-nine others were injured when the fire was whipped up by a sudden gale on August 21. Signs and monuments mark the important locations along this trail, including the fire camps, the first aid station, Clayton Gulch where eight men were killed, and the rocky knoll where Ranger Post gathered his crew to escape the fire.

The dedication was sponsored jointly by the Forest Service and the American Legion. Short religious services were in charge of Civilian Conservation Corps Chaplains H. E. Ford and L. E. Rubel. The dedication address was given by Paul Greever, former congressman, of Cody.

The American Forest Fire Medal for heroic services at the time of the fire was awarded to Bert Sullivan, of Cody. Mr. Sullivan was unable to be present at the dedication, as had been planned, but his brother, Bryan, accepted the medal for him. Presentation was made by Tom Gill, Secretary of the Charles Lathrop Pack Forestry Foundation, of Washington, D. C.

Mr. Fred Morrell, of Washington, D. C., represented the Secretary of Agriculture at the dedication and made a short statement commending the Civilian Conservation Corps that constructed the monument. A message from Director Fechner was read by Regional Forester Allen S. Peck. Governor Nels H. Smith and other State officers and a delegation of Civilian Conservation Corps and Forest Service officials also attended the dedication. (From R-2 Press Release)

LIBRARY
RECEIVED
★ SEP 2 ★

SERVICE BULLETIN

Contents Confidential

Vol. XXIII No. 19 Washington, D. C. September 18, 1939

FOREST SERVICE ACTIVITIES IN PUERTO RICO - VARIED AND INTERESTING

By F. R. Yates, Caribbean

The Caribbean National Forest of Puerto Rico, Region 8, is listed in the Service Directory as a one-Ranger District Forest. Many of you are probably convinced that a detail here would lack variety of work and could not possibly be interesting. I admit that such was my original impression, but after being here two months I find that I was so mistaken that I feel duty bound to describe some of the more interesting activities of the Forest Service in Puerto Rico.

The Forest Supervisor is not only charged with the administration of Federal Forest lands, but, in addition, he is Chief of the Insular Forest Service and Director of the Forestry Division of the Puerto Rico Reconstruction Administration. He is responsible for the administration of nearly eighty-five thousand acres; about 3.5 percent of the total land area of the Island. The problems presented by operating under three distinctly different sets of Fiscal and Administrative Regulations give interest and variety to the paper work. Field problems are even more complex. Eight ranger districts have been established, only one of which is included in the Caribbean National Forest. Within these districts, conditions vary from the tropical rain forests of the Luquillo unit to desert areas of mesquite and cactus on the south coast.

Twelve CCC camps are now in operation under complete Forest Service administration. This means sole responsibility for enrolling, feeding, lodging, providing medical attention, educating, and maintaining discipline, in addition to handling the work projects. Being responsible for 2100 enrollees under unified control greatly increases the CCC workload in Puerto Rico.

Because of these differences in administrative set-up and the great variety of forest types on the island, we naturally have many activities not common to forestry in the States. For example, due to the limited personnel, the large area involved, and the swampy condition which limits travel to a boat, the mangrove forests are patrolled by plane to locate operations of trespassers cutting mangle for charcoal. Another instance is the Forest Service cooperation with the School of Tropical Medicine in furnishing labor for construction of hurricane proof hutches, water basins, dock, trails, and shelters for the colony of 325 monkeys on Santiago Island, located a mile off the eastern mainland of Puerto Rico. This particular breed responds most nearly to human reactions, making it valuable for research purposes and experiments.

Although the use of radio is no novelty for many forests in the States, here radio communication entirely replaces the telephone for headquarters to district communication. Regular hourly schedules are maintained with all camps and ranger district offices. Road construction on the forests is a test of engineering skill. Due to steep topography, rock cliffs, thin soils that get slick when wet, and to the tremendously heavy rainfall, landslides take the place of forest fires here for headaches. Rainfall at the Luquillo Ranger Station averages 200 inches per year. In 1936, 254 inches fell, 36 inches in six days. Consequently, the problem in the National Forest is to start a fire - not to put one out. Forest fires are unknown except in the dry Insular and P.R.R.A. forests located on the western end of Puerto Rico.

The Forest Service has been delegated the responsibility for operating and maintaining a fleet of boats used for deep-sea fishing off Mona Island, lying some 40 miles west of Puerto Rico, half-way to Santo Domingo. Sportsmen who take advantage of the facilities offered find there one of the best fishing grounds in the world. The island was one frequented by pirates who, no doubt, used many of the limestone caves to bury their loot. On top of the table-like mesa, 230 feet above the sea on the north cape, is a modern lighthouse. Below, at the water's edge is the wreckage of a fifteenth century Spanish Galleon. All land suitable for reforestation has been planted to valuable trees by CCC labor housed in Camp Cofresi located on the northwest shore. Wild goats afford good hunting and food for the camp members. Giant iguanas, rock lizards five feet in length, inhabit the smaller caves. At regular intervals migrating thousands of birds of various species visit the island. These natural advantages give Mona Island excellent recreational possibilities for the type of sportsman who loves hunting, fishing, and the wild, and who can pay the price.

In addition to these variations of work and opportunities for experience, there are many other advantages in accepting an assignment on this tropical forest. One has an opportunity to learn the Spanish language. He realizes at least four delightful boat trips to and from the States. The administrative policy for employees assigned to Puerto Rico also assures them of equal consideration for promotion at the completion of their assignment. This, and the other advantages briefly mentioned, explains, no doubt, why an increasing number of employees in Region 8 have filed application for service in Puerto Rico.

STATES RIGHTS & CONSERVATION DISTRICTS

By Benton MacKaye, Washington

As Federal workers it is well perhaps to lean toward States Rights. Provided of course the Rights go in truth to the State affected and not to Something Else. Part of our Federal job is to help balance this old antithesis of One State and All States. It boils down to a division of democratic functions - to what Lincoln called "locality and generality." That, said he, is "all there is of principle about it."

We may go further, then, and suggest "Locality Rights", the rights of a county or some natural neighborhood of towns, or of some functional unit of geography such as a drainage basin. Those of us working on flood control might call them "Watershed Rights."

Indeed for flood workers it would be a boon if our country were a United Watersheds of America rather than United States. Suppose there were a hundred watersheds each about the size of the Ohio Valley above Pittsburgh. There would be about ten such in the entire Ohio River valley; and the general (Federal) government would correlate their flows. Each would divide say into ten; and a local (watershed) government would run each subdivision.

Well, we have right now the seed of such local watershed form of government. It is the Soil Conservation District. In thirty-six States it has been made a legal entity. It can be made to apply to the forest and water resources as well as to the soil; and this proposal has been placed before at least one legislature (Massachusetts).

The gist of the scheme is this:

First, the State by legislation creates a Commission to pass on the creation by a group of people (land owners and occupiers) of a "District" embracing their locality (say a county-sized watershed).

Second, the District (watershed) government gets up a plan for the conservation of the soils, plus forests plus waters, within its territory and submits it to the local owners and occupants.

Third, such plan if adopted goes into effect.

That is all there is to it so far as legal machinery goes; the rest is education as to possibilities. This education should begin at home. There are two homes: (1) each of a thousand or more potential Localities or Watersheds; and (2) here in the Generality (or Federal) government.

How might the scheme work for purposes of flood control?

Suppose the folks living in the watershed of Rapid River (covering parts of a couple of counties) form a District and tell their government (the Supervisors) to get busy on a plan to reduce the danger of local floods.

For example, a proposal has been made for one big reservoir for storing all the likely flood waters of Rapid River. This the Supervisors put up to the folks. They promptly turn it down. It's a fine thing, say they, for the big cities downstream, but not for us up here. It would flood our best farm lands and yet leave us unprotected. Try again.

So the Supervisors propose another scheme. Have a dozen small reservoirs instead of one big one; this they claim will not subtract from control downstream and will add up to that up here. As further aids, do contour farming, and reforest the steep hillsides. In short, three way conservation -- of waters, soils, forests. If this plan is agreeable the exact details can be worked out and some way found to pay for it.

"Now you're talking", say the folks, and they vote to have it so. They vote thus for a policy of multiple use (whether they call it this or not). They vote, that is, for common sense all-round conservation for "whomsoever it may accrue" as the law states; and for whatever resource accruing, including the absence of floods.

So far so good.

But perhaps those cities downstream claim the scheme does not after all afford them sufficient protection. Perhaps they raise a howl and demand the one big reservoir for Rapid River. Then a delicate question rises: which shall be flooded - upstreamers or downstreamers? We of the Generality government would have the final say.

We indeed would be the unfortunate umpire. Such cases arise. But in the great bulk of cases the detail problems can still be solved in the local watershed by the occupants thereof.

Here, then, is a field open to the Conservation Districts Law. This Law and its development raise interesting possibilities in the realm of practical democracy. It forms one vehicle at least toward an answer to that yet unsolved problem of American government, so-called "States Rights"--the adjustment of locality and generality. This is "all there is of principle about it". Now to put it into practice.

WHY NOT?

By W. E. Anderson, Chelan

Mr. Beers' article in the August 7 issue of the "Service Bulletin", entitled "In Cooperation with the United States Forest Service", reminds me of what a tired, blistered fire fighter said about smokers' fires. There were 549 other sooty CCC's and locals on the fire we were mopping up. They knew that the last spark had to be put out before the last man could go home.

Said fire fighter Number 550: "If the Forest Service can stop a 500-acre fire up here in the mountains in this kind of weather and put out every spark, why can't a fisherman put out every spark of his cigarette or camp fire?"

Fishermen, campers and other forest users haven't thought about that, and it may be material for the Division of I&E and the NBC.

EDUCATION EN MASSE

By H. N. Wheeler, Washington

Education en masse is imperative if the number of forest fires and acreage burned is to be materially lessened and forestry practice is to become a Nation-wide policy. Proper laws energetically enforced are a necessary part of the program. But the great need is for education. Conservation courses of study should be offered in every College and University, and should be obligatory in every high school and Teachers College. But still more is needed. Conservation should be injected into all textbooks of every branch of study, in every curriculum, from the primary grades up through the high school. For a primer a sentence such as "The cat killed a bird," is just as well understood and is more truthful than, "The cat killed a rat." In arithmetic, why not such a problem as, "If young growing pine trees increase 200 board feet per acre per year, how long will it take to grow 1,000 board feet?" or "If 10 tons of soil wash from an acre of plowed field in a year how much will be washed away in 40 years?" More complicated problems can be easily devised for the advanced courses in mathematics. In grammar and courses in English many phases of conservation can be brought into the textbooks. An example of alliteration printed in Reed and Kellogg's grammar many years ago still lingers in my memory. It was said to come out of Missouri. It was:

"The roads are not passable, not even jackassable;
And all who travel them, must get out and gravel them."

Gravel roads did not exist where I lived and that was the first intimation I had of such roads.

Conservation should fill much more space in our histories and geographies and in all literature if we are to become conservation minded.

It will be necessary for foresters and other conservationists to meet with the leading educators and prepare this material for the textbooks and sell the idea of using it to the authors and printers of our educational books. When our people as a whole, young and old, have a conception of our losses in natural resources, and how to prevent them, we will see fewer forest fires, less acreage burned and a better appreciation of what these resources mean to us, and what steps must be taken to conserve them.

NOTHING SUCCEEDS LIKE SUCCESS

By Ernest R. Buhler, Washington

Why community forests? Do they pay? Do people want them? Are they increasing in popularity?

The following figures showing the yearly growth of community forests in New York show their popularity. For the last thirty years New York State has shown a steady growth in its community forest program. The record is impressive. The movement started in 1909 when three community forests were established. Their development each year in New York is as follows:

1909	3	1924	22
1910	9	1925	26
1911	2	1926	34
1912	7	1927	50
1913	5	1928	51
1914	9	1929	27
1915	12	1930	34
1916	10	1931	38
1917	2	1932	35
1918	15	1933	30
1919	5	1934	24
1920	6	1935	19
1921	11	1936	28
1922	16	1937	17
1923	32	1938	20

New York State now has 599 community forests. The total area covered by them aggregates 150,000 acres and more than 68,000,000 trees have been planted on these community forests since 1909, when the first unit was established at Gloversville.

MOVIES ON THE DIXIE

That the Dixie has what it takes is again brought to light by the fact that Twentieth Century-Fox has selected Sidney Valley on that forest as the picturesque setting for the filming of "Drums Along the Mohawk". A company comprised of 150 or more people is now located on that area with Claudette Colbert and Henry Fonda as the stars, with a supporting cast of several noted co-stars. The background of the story is along the Mohawk River in New York in the year 1775. The characters include Indians and the early adventurous settlers of New York.

The Dixie has had a number of well-known movie productions filmed among its many colorful and scenic canyons and valleys. (R-4 "Daily News", August 1)

MORE ON IN-SERVICE TRAINING

By Miriam W. Drimmer, Washington

Too little time is devoted to the "green" stenographer who usually conceives of the Foresters as a bunch of wild and woolly men who chop down trees.

Her first day in the Forest Service is usually spent in a "pool" where she swims in terms completely foreign to her background, and attempts to check work about which she knows little or nothing. Her previous work may have been in a manufacturing concern, or in the office of a large chain store establishment or some similar office. In any one of these, letters would come through regarding purchases, sales, prices, advertising and other general business matter; nothing to help her understand the meaning of words like polyploidy, thermal conduction, dichogamy, hydrology, or cutting cycle.

What we need is a school for stenographers -- a Forestry School, not a stenographic school; one wherein the groundwork will be laid for the future secretary who handles all phases of forestry which she may be called upon to explain to an interested visitor waiting for the "boss". The graduate should be able to handle letters with understanding and use her initiative with the help of the background obtained in the Forest School for Stenographers. Its courses should deal not only with Government rules and regulations, but also with forestry aims and ideals, and common terms, their meanings and usage.

An opportunity should be provided at this school for the new stenographer to question those who have been in the Forest Service longer and know the difficulties and bewilderment of someone new and unfamiliar with scientific methods and pursuits.

The outstanding students, most adept at learning and applying their knowledge will, if the course is properly presented, most likely be the outstanding employees and--there's no reason why these apt pupils shouldn't be remembered when promotions and higher-grade openings occur.

THE EDITOR DISCOVERS

The following resolution was adopted by the Kiwanis at their International Convention held at Boston this summer:

"WHEREAS, the public welfare, including the stability and prosperity of communities in the United States and Canada, and employing industries, requires the restoration and conservation of forests, soils, waters and other vitally related natural resources, be it

"RESOLVED, that Kiwanis International in Twenty-Third Annual Convention assembled, again recognizes that the conservation of natural resources is a problem of serious national importance, demanding the constructive attention of citizens and government, and therefore recommends earnestly that all clubs and districts of Kiwanis shall initiate such conservation projects as are particularly applicable to their respective communities, and that Kiwanis International shall give leadership and support to such local, state and federal policies of conservation, including encouragement to private industry, as will ensure that such natural resources shall be permanently available for wise and beneficial use."

- - - - - - -

The interior of the new State forestry office building at Salem, is "a symphony in Oregon woods," according to Richard Nokes, staff writer of "The Oregonian."

Unstained woods, representing nearly every variety of timber growing in Oregon, are featured in their natural beauty in the various rooms of the builiding. Curly Douglas fir wall paneling and flooring of Oregon bigleaf maple are used in the reception room. The state forester's office has walls of Oregon myrtle, a beamed ceiling of tanbark oak, and a floor composed of four native hardwoods--black locust and three kinds of oak. The deputy state forester's room utilizes "Crowfoot" hemlock wall paneling and oak flooring, while the meeting room of the Board of forestry features Oregon bigleaf maple burls and planking. The office of the state forester's assistant is finished with knotty Noble fir, with the ceiling paneled in knotty ponderosa pine. Clear spruce wall paneling and a curly redwood ceiling decorate another room. Other woods used in the interior include: Sapstained ponderosa pine, red alder flooring curly ash wainscoting, knotty red alder paneling, clear sugar pine paneling, knotty hemlock, yew, Port Orford cedar, and western red cedar.

- - - - - - - -

W. M. Maule, former Supervisor of the Mono National Forest has been nominated as a fellow of the American Geographical Society, according to an item in the "California Ranger." The honor came to Mr. Maule for his excellent treatise "A Contribution to the Geographic and Economic History of the Carson, Walker, and Mono Basins in Nevada and California."

The July issue of "The Geographical Review" contains an excellent write-up on Mr. Maule's study. The following excerpts are from this write-up:

"For twenty-five years (1913-1938), while carrying on his work as Supervisor of the Mono National Forest, the author of this book devoted his leisure to the compilation of source material on the economic and geographic history of the area under his management and the contiguous areas. The result is a scholarly piece of work distinguished by resourcefulness, judgment, and economy of exposition. Appreciation must also be expressed for the set of ten topographic maps, each with graphic overlay showing roads, routes, and places discussed in the text, for the summary tables and for the reproduction of rare and old maps, photographs, and documents."

"Mr. Maule has rendered students of the history of the West an invaluable service by bringing together and preserving for them a wealth of oral tradition and by making available certain facts hitherto hidden in relatively inaccessible archives and publications; the Regional Forest Service in San Francisco has earned their gratitude by presenting this material in so useful and pleasing a form. It is sincerely hoped that means will be found to reissue the book, so that more of those interested can possess it."

Excerpts from Mr. Maule's report were quoted in the "Service Bulletin" for January 9, 1939.

- - - - - - - -

Nearly 6 million big-game animals are in the United States, according to the second nation-wide big-game inventory conducted by the Bureau of Biological Survey. Deer account for more than 5-1/3 million. Counts for other big-game species in round numbers are: elk, 228,800; black bears, 93,500; peccaries, or javelinas, 40,200; moose, 16,300; mountain goats, 14,400; Rocky Mountain bighorn sheep, 11,300, and desert bighorn sheep 5,000; buffaloes, 4,500; grizzly bears, 1,100; European wild boars, 845; and woodland caribou, 16.

MONTE RAY KENNEDY

Monte Ray Kennedy, Chief of Equipment and Supply, Division of Operation, died at Garfield Hospital in Washington on Sunday, September 3, at the age of 43. Mr. Kennedy was operated on early in August for a ruptured appendix and in spite of many blood-transfusions during the weeks that followed, finally succumbed. He was buried in Arlington National Cemetery.

Mr. Kennedy was well and favorably known throughout the entire Service. He entered the Forest Service in Region 2 as clerk on the Montezuma Forest in the fall of 1921; served as Principal Clerk on the Rio Grande Forest in that Region; and as Chief of Maintenance in the Denver office for many years. He transferred to Washington in 1935 as Chief of Equipment and Supply, which position he was occupying at the time of his illness.

Mr. Kennedy was extremely popular with all those who worked with him, as well as with the many people in private concerns with whom he came in daily contact in his work. His unfailing good humor and friendliness made him extremely popular among his many acquaintances. Monte was an excellent golfer and was well known on the links about Washington. In his passing the Forest Service has lost a faithful and loyal worker and his intimates have lost a highly valued friend. He leaves a wife, Mrs. Beatrice Kennedy, a daughter and two sons, besides his father, three brothers and two sisters to mourn him. The sympathy of the entire Service goes out to them in their bereavement.

Henry Wold

FOREST FIRES

(Excerpts from an article by Col. G. F. T. Leather in the July 1939 issue of Quarterly Journal of Forestry, the official publication of the Royal English Forestry Society)

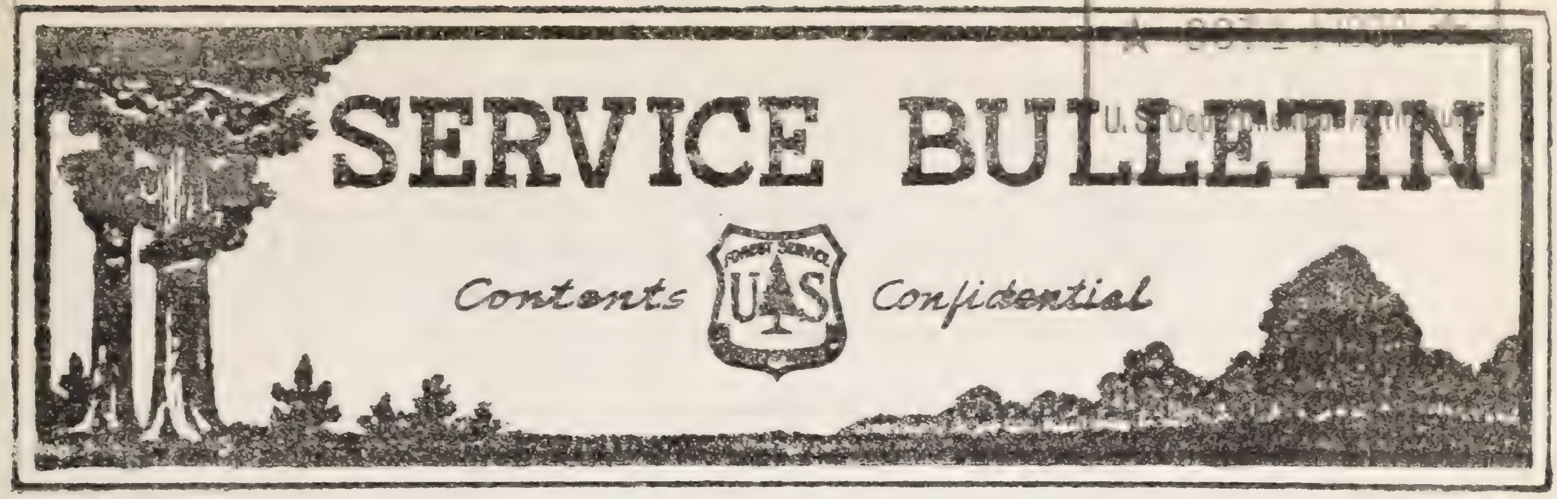
"It is heart-breaking for tax-payers and owners to see their forests going up in smoke whilst the careless people who are to blame for the tragedy are usually undetected. It is more than probable that these fires are due to carelessness and negligence rather than to malice; in fact one can hardly imagine anyone burning a beautiful wood on purpose. Insurance of woods against fire is not a business proposition and can only be done to a very small extent."

"The Royal Scottish Forestry Society have been spending their annual outing this year at Cluny Hill Hydropathic, Forres, and almost within sight of the hotel three large fires were raging."

"A discussion on fighting forest fires was inaugurated in the hotel when Mr. J. M. D. MacKenzie, I. F. S. (retd.) gave an account of how forest fires were dealt with in Burma. He stressed the necessity of early information of the outbreak of fires so that they could be tackled before they got out of hand."

"Herr Hans de Marees, Forstmeister, Bad Berka, Thuringia, Germany, a member of the party, was asked to give his experiences of forest fires in Germany. He regretted that he could not give any information as he had never seen a forest fire in Germany. In his opinion prevention was better than cure. He noticed that the Forestry Commission were very polite and asked smokers please to be careful with matches and cigarettes. In Germany they were more direct, and smoking, or even the carrying of matches in the woods was "verboten." "Verboten" meant not only forbidden, but the forest guards were empowered to arrest anyone contravening the laws, and fining or otherwise punishing them on the spot without reference to a court of law. This probably accounted for the fact that he personally had never seen a forest fire in Germany."

LIBRARY
RECEIVED



SERVICE BULLETIN

Contents Confidential

Vol. XXIII, No. 20 Washington, D. C. October 2, 1939

ASPECTS OF FOREST SERVICE ARCHITECTURE

By W. Ellis Groben, Washington

In analyzing the broad architectural tendencies throughout the various Regions with reference to the design of future Forest Service buildings for Administrative Sites, numerous instances of dissatisfaction with their former appearance are to be observed. In general, this is due to their not being considered representative of the Service itself.

The designs now in vogue are based upon variations of imported styles, foreign in character to a particular Region and not unlike other city or suburban buildings. Accordingly, they fail to possess Forest Service identity or to adequately express its purposes. Consequently, they are subject to adverse criticism, much of which is well founded.

This predicament may be accounted for by very definite reasons.

First, - no one style of architecture can be singled out to adequately represent any Government agency because the country itself is vast in extent and varied in character.

Second, - to accomplish such a difficult task, were it possible, the designer must necessarily be a genius. Even Michelangelo, as imaginative and versatile as he was in architecture, never developed a style. Styles in architecture are not the creation of a single individual but, rather, the outgrowth of particular social and economic periods.

Third, - if any one style of architecture were to be adopted universally, or a particular type developed for Forest Service buildings generally, it would immediately become a monotonous repetition, and subject to adverse criticism for this reason alone, if for no other.

Fourth, - it is self-evident that the Colonial Style, for instance, is inappropriate in localities where, from past experience and traditional usage, the Adobe or Pueblo Style has been found to be appropriate, attractive, and practical.

Fifth, - The problem of a single, acceptable, and appropriate style, satisfactory for buildings in all localities and under all conditions, is unsolvable due to the variety of purposes served by Forest Service buildings, such as residences, offices, shops, warehouses, barns, laboratories, etc.

The sole purpose of the foregoing remarks is to emphasize the important conclusion that Regions which take advantage of their traditional or native architecture avoid the pitfalls and other difficulties involved in the indiscriminate use of inappropriate, foreign styles.

To accomplish the desired results Regions, not fortunate enough to have any traditional architecture, must resort to the development of original designs based upon typical regional prototypes, refraining from the use of established styles, now recognized as unrepresentative of the ideals and purposes of the Forest Service.

Therefore, the first step in this procedure is to zone the Region for architectural styles, based upon climatic characteristics, vegetation, and forest cover. This has been done very logically by one Region in the following manner:

Type of Country	Style of Architecture
Desert or semi-desert	Adobe or Pueblo
Grassland	Ranch-house Type
Woodland - pine, fir, or spruce	Timber Type
Alpine	Alpine type (stone or stone and rough timbers)

These general classifications represent a reasonable subdivision of the Region into localities typified by different natural characteristics and the respective type of design appropriate to each.

When Administrative Sites, Service Groups, etc., are designed in accordance with this sort of primary consideration they will be neither monotonous, inappropriate, nor lacking in those characteristics which are thoroughly representative of the Forest Service itself.

Ultimately, logical and simple classifications of this sort will very measurably assist in determining elevational design with reference to the use of acceptable, appropriate types of architecture.

CHIEF JOHNSON'S TOTEM POLE

By Linn Forrest, R. 10

The story of Chief Johnson's totem pole at Ketchikan, Alaska, is read from top to bottom. The top figure on the pole is Kajook, and is described by the natives as a large hawk which lived high among the mountains never descending to the lower elevations. It was brown in color with the wings and tail half "black out" or perhaps better described as black tipped. Kajook was the crest of Chief Johnson and his alone. Only with his permission could it be used by others of his tribe, this favor being granted even then only to his son or grandson.

The plain round pole below the bird symbolizes distance and emphasizes that Kajook's dwelling was lofty places.

The next two figures are interpreted as the Raven's slaves. Next is the Raven, the Daughter of the Fog, two masks which were used to show personal wealth as possession of slaves symbolized, and last the salmon clasped in the Daughter of the Fog's hands. All of the figures from the Raven's slaves on down are a part of the following story which has to do with the origin of salmon and is supposed to have taken place in the vicinity of Anan Creek:

Long ago the Raven lived with his two slaves in a cabin on Anan Creek. One day he took them with him in his canoe and went out in the channel to fish. This particular day they had not gone far before the fog settled around them and they lost their way. Suddenly they looked around and noticed a woman sitting in their canoe. It was the Daughter of the Fog. She asked the Raven for his spruce root hat and when he gave it to her she turned it upside down and soon all the fog began pouring into the hat and the weather became clear again. Thereupon they returned to their cabin taking the Daughter of the Fog with them.

Sometime later, while the Raven was out fishing for rock cod, etc. (there were no salmon then) the Daughter of the Fog sent one of the slaves to Anan Creek to get water in the spruce root hat which was also used for this purpose. When the slave returned with the water, he put his finger in it and noticed a salmon was there. The Daughter of the Fog told the slave to hurry and cook it and they would eat it before the Raven returned. This was done and just as they were finishing they heard the Raven coming so the slave ran out to meet him. As the slave greeted him the Raven saw the meat between his teeth so the slave had to tell the Raven that the Daughter of the Fog had made the salmon.

The Raven asked her how this was done, so she told him to build a smoke house in which to dry salmon - that she was going up Anan Creek to wash her hair - and that on the fourth morning he should go down to the bay and look for salmon. So on the fourth morning the Raven got up early and went down to the bay and surely enough, it was alive with jumping salmon. He returned and the Daughter of the Fog then told him to go up the creek and look. It too was full of salmon.

The Daughter of the Fog then began drying the salmon which the Raven's slaves caught and soon they had so many that they made ropes of cedar bark and bundled them together. These they took across to an island and cached for their winter's food.

Returning to Anan Creek, they dried more salmon until the smokehouse was full. They bundled these together and then commenced taking down the smokehouse preparatory to moving. By this time they were becoming very tired and a "big argument" arose between the Daughter of the Fog and the Raven. During the course of it the Raven picked up the backbone of a salmon and stuck it into the Daughter of the Fog's side. She ran towards the beach and when he tried to catch her his hands slipped by as if she were fog. As she entered the water the Raven heard a noise behind him and upon looking around saw the bundles of dried fish rolling down towards the water. Soon all the bundles had rolled into the water. He called his slaves and they started to the island where the other dried salmon was cached, but upon arriving there only tracks leading from the cache to the beach could be found. Seeing this the Raven turned to his slaves and told them the salmon would return the next spring, which they did and have always done ever since.

(This story was told to Peter Kyan by his father and Peter Kyan interpreted it for me. While no part of the story itself, Peter Kyan called my attention to the fact that since the Raven had stuck the Daughter of the Fog with the backbone of a salmon, no salmon backbones are ever found in the creeks although many fish go up the streams each year and die.)

TO OUR BOOK-KEEPERS

By M. A. Huberman, Washington

The recognition of achievements must be as varied as the achievements themselves. The creation of a statue or a painting, or the discovery of the cure of a disease speaks for itself, but the work of the bronzecaster, the stoneworker, the model, or the laboratory technician can only be recognized through its influence on other peoples' masterpieces. Plaudits and encomiums are too seldom the rewards of such workers.

Scientific work requires having at one's fingertips the findings and experience of other investigators. This is essential if the scientist is to take advantage of the best and latest methods and ideas, avoid unnecessary duplication, and have available the accumulated fund of information in his branch of science. This is the function of a library. This is the service which our Forest Service Library has been performing for us, without fanfare, and with too little recognition. Perhaps a listing of a few of the outstanding accomplishments of the past few years and current activities, which are entirely apart from the excellent regular services, will help call to the attention of the Library's customers the treasure-trove we have in books and librarians:

1. Compilation of "A Union Checklist of Forestry Serials," by Helen Moore, 1936.

2. All Regional and Station Libraries, except Prairie States Forestry Project and Southwestern Forest Experiment Station, have been visited by a Library staff member and recommendations and suggestions given to Librarians.

3. Forestry Current Literature changed format and made more usable; all references are now arranged by subject, and author index and a list of periodicals indexed appended to each issue; accumulated author and title series issued annually.

4. A number of annotated bibliographies issued including "Forest Recreation", "Administration of Research", and "Effects of Fire on Forests".

5. W.P.A. people mended several thousand books, bound in temporary binders several hundred books, and cleaned all books in the Library.

6. Station reference work was aided by promoting the purchase of Agricultural Index for all Station libraries.

In various stages of completion are the following current activities:

1. Bibliographical aids to the Field Libraries advanced through arrangements to microfilm our card catalog.

2. Merging Compilation File with regular Library.

3. Transferring all translations to the Library.

4. Revision of card catalog.

5. Preparation of a handbook of library procedure for Field Libraries.

6. Revision of list of subject headings.

7. Classification scheme for mimeograph material being expanded.

8. Duplicate collection being put in order.

9. Initiation of a system of traveling libraries for rangers. Planned by WO Librarian, but put into effect first in Region 8 by Miss R. Lane.

10. Centralized cooperative cataloging among all Forest Service Libraries.

Plaudits and encomiums to our Librarians! A note of appreciation from a satisfied clientele to Mrs. Mildred B. Williams, Miss Melissa Speer, Miss Daphne Hopkins, and the rest of the Washington staff of permanent and temporary personnel, might serve to cheer them up, at least until the Library can be moved to brighter quarters than the 2nd floor of the old Atlantic Building.

REVIEWS OF RECENT BOOKS AND REPORTS

"Vanishing Lands" by R. O. Whyte and G. V. Jacks

(From a review by John Chamberlain in the
August 30 issue of "The New Republic")

"This book packs a wallop that is as unsettling in its own way as a jab from the left hand of Joe Louis. Not that it is especially well-written; it isn't. Not that its repetitive technical detail about broad-base terraces and Nichols terraces and strip-cropping and the use of the black locust tree in controlling erosion is particularly fascinating. No doubt these facts are to be had in any number of pamphlets put out by Mr. Wallace's willing Department of Agriculture. But what you would never find in a mountain of pamphlets is the particular philosophy of history that emerges from the facts assembled for 'Vanishing Lands.' If even half of what the Messrs. Whyte and Jacks have to say is true, then practically all our publicists, sociologists, and economists are, if not moon-struck idiots, at least vain wanderers in the dark.

"Some years ago Mr. Joseph Wood Krutch asked a rhetorical question: 'Was Europe a Success?' With Hitler on the loose, the question would seem to answer itself: man might as well live in a cave as in a Nazi brownhouse. Nevertheless, Europe has been a success and, on the evidence of the Messrs. Whyte and Jacks, maybe it is the only one of the seven continents that is capable of nourishing a sustained civilization. Every old non-European civilization the world has known--in Mesopotamia, in North Africa, in China, in the New World--has either failed with its soil structure or succumbed to the tyranny that seems to go hand in hand with farming by irrigation. Only in Europe--and in northern Europe, at that--have men ever been able to maintain a proved long-term democratic working balance with nature.

"It is a silly fact that you can't support a multitude of human beings on soil that fails to keep a granular structure. It is an even sillier fact that the forest soil of northern Europe lacks this granular structure in its virgin form. Forest soils are formed by the dropping of leaves and twigs, which decay to make up a series of laminations. As long as the laminations are covered with forest litter, they stay put. Once the forest is cut down, however, the laminations act as shearing planes, thus facilitating the movement of the soil en masse. But European man, with no naturally good earth at his disposal, slowly stumbled by trial and error—and by a mixed farming that included animal husbandry—upon the secrets of creating granular soil by manuring. European man could afford to blunder in his experiments, for northern Europe has a climate that does not run to violent extremes. The rain falls gently upon France and England and Scandinavia and Germany; it soaks into the earth by slow degrees. And the ambient air is kept humid by the proximity of oceans, bays, and inlets, which means that the soil stays humid, too. With just the right climate to keep soil in place, and just enough real hard work at soil building to keep him frugal and common-sensical, the European farmer is not apt to mine his acres in the interests of a quick profit and a speedy getaway to some other spot. A peasant, the European farmer becomes part of the landscape, a way-of-life agrarian, not a bonanza-or-bust business man.

"Beyond the seas, however, in the semi-arid grasslands of North America, Australia, and the Argentine, emigrants from Europe discovered a giddy temptation in acres of soil that is naturally granular in its structure. The interlacing roots of grasses tend to break the soil into discrete particles that are ideal for tilling, and, given time, decaying grass blades impart a natural richness to prairie land that is seldom found in acid forest earth. With the dream-soil of the plains to be had for the taking, Europeans in the new lands tended to forget all they had learned in fifteen centuries of intensive agriculture.

"For years the lapse in memory seemed to make no difference. Moreover, the new world plains produced so much in excess of local needs that Europe traded manufactured goods for overseas grain and let her peoples multiply far beyond the Malthusian safety margin. Eventually, however, the soil of the plains deteriorated: corn and cotton, which are bare crops, naturally encourage erosion and drifting. At this point the transplanted European discovered his memory. But he also discovered that neither green manuring—the plowing under of cover crops—nor the application of organic farmyard manure worked very well in the dry climates. Green manuring seemed to remove the moisture required for wheat, and organic manures failed to decompose under low rainfall conditions. The result of undecomposed manures in the ground was a 'burned' cereal crop and a greatly diminished yield.

"With the failure of his ancestral wisdom, the transplanted European in western America, on the pampas and in the Australian bush, is somewhat baffled. No one knows for certain whether he can work out a permanent high-yield agriculture suited to a climate that naturally tends to produce grass-lands. If he can, then American and Australian and Argentinian civilization has a glorious future; if he can't—then Europe alone will remain. The odd thing about it is that Soviet Russia, which claims to have solved her food troubles by collective methods, is in the same boat with America, Australia, and the Argentine: her commissars do not know, for certain, whether the steppe will keep on producing what the Russians need to feed a population of 170,000,000 people. Many devices for preserving soil fertility on the plains are now being tried, both in the American West and in the Soviet Union. Some of them seem promising, but it is too soon for the prophets to speak out with certainty.

"From the many facts which Whyte and Jacks have assembled, a complete justification for economic nationalism emerges. Europe must strive for agricultural self-sufficiency lest she be dragged down eventually with the vanishing fertility of the overseas prairies. My friend Raymond Leslie Buell frequently complains that the French are crazy to raise wheat as long as there is a surplus of cheaper American grains to be had for the bidding. But the French, on the evidence of Messrs. Whyte and Jacks, are crazy like a fox. For our wheat and cotton carry-overs are not symbols of surplus wealth but of progressive soil impoverishment.

"In the space at my disposal I have necessarily had to hit the high spots of 'Vanishing Lands.' But the book contains food for a couple of decades of hard thinking. Let our would-be Spenglers and Adam Smiths and Marxes get busy, for here, in an unpretentious volume, is material for an entire re-writing of western—and world—history."

("Vanishing Lands" is published by Doubleday, Doran and Company, New York; price $4.)

Regional Planning - Part VIII - Northern Lakes States

This report was prepared by the Northern Lakes States Regional Committee, organized by the National Resources Committee in the spring of 1938, and deals with the serious social and economic problems of the people living in the cut-over areas of Michigan, Wisconsin, and Minnesota. It was presented to Congress by President Roosevelt on July 31, 1939.

The region covered by the report contains 57 million acres of land in 86 counties of northern Michigan, Wisconsin, and Minnesota. Here, the report points out, lives a population of 1½ million people dependent on lumbering, mining, commercial fishing, farming, and recreation. The former two once afforded the major portion of the region's income, but with their depletion they were partially supplanted by the latter two. Proceeds from farming being meager, and from recreation being quite seasonal - these have not filled the gap satisfactorily. Government relief gives some help but effects no permanent cure. An increase in poverty has not been accompanied by an appreciable decrease in population.

The Regional Committee in its report deals at length with the problems and possible remedies for each type of enterprise possible in this region. Fundamentally it recommends that the people themselves effect the cures with what help is necessary and available from public agencies. Its recommendations are general in character for each type of enterprise. Among those greatly stressed is the part forestry can play in helping to make the area self-supporting.

The Committee has set up the following objectives:

A. To meet the immediate social problem through the development of opportunities for work within the region, both continuous and seasonal.

B. To encourage agriculture where feasible, both as a full-time occupation and on a subsistence basis supplemented by other employment.

C. To renew and operate intelligently the forests; to adjust the use of the land and waters to the best advantage of the region; to expand public acquisition of lands; and to develop the recreation possibilities of the region.

D. To explore, to develop, and utilize properly its mineral resources.

E. To encourage the development of industry through research into the possibilities of the region's resources for manufacturing.

F. To attain uniformity of commercial fishing regulations so as to stimulate the use of practices which will renew and maintain that resource.

G. To bring about practices which will promote economical local government.

H. To coordinate Federal, State and local efforts so that regional problems may be attacked unitedly.

I. To encourage local leadership and initiative to undertake the development of objectives and plans of action.

The Forestry Situation is summarized as follows:

"Originally, nearly all the 57 million acres in the region were forested. Today, cutting, land clearing, and fire have reduced the area of old growth sawtimber to about 2.7 million acres. Although logging and land clearing have been in progress for over 50 years, 80 percent of the region or about 45 million acres is still forest land of one type or another. About 10 percent of this area is in sawtimber stands (both old growth and second growth), 20 percent carries cordwood stands, slightly over 50 percent is in some form of small reproduction, while a scant 20 percent is deforested. Of the 23½ million acres classed as reproduction, about 65 percent is composed of types where the so-called 'weed' or lesser value species like aspen, oak, and jack pine predominate, while 35 percent consist of white and red pine, mixed hardwoods, and coniferous swamp species.... Forests at one time gave more employment than any other resource.... The lack of more and better reproduction and second growth is due not so much to cutting as to the repeated fires which followed cutting in the earlier periods. Of late, forest fire control has been much improved in the three States, and nature has done a pretty good job of restoration.

"Within the region are 7 million acres entirely deforested and in need of planting....

"If present forest employment is to be continued after the remaining virgin timber is cut, some form of selective logging will have to be put into practice promptly. This may come through some form of cooperation between private owners and government, regulation by government, or public acquisition.

"Even though the bulk of the original timber resource is gone, nature has reclothed vast areas with so-called 'weed trees'. Twenty years ago jack pine was considered a 'weed' tree of no value. Today, although of no great value for lumber, it is in good standing because of its value for pulp, is much sought after, and even extensively planted.

"There are some 45 million cords of aspen and scrub oak in the region. The development of uses and markets for the poorer trees would add materially to local employment.

"Millions of acres of cut-over, burned-over land have come back to public ownership through tax forfeiture."

To restore the forest resource and furnish employment, the following action is recommended by the Committee:

A. Continuance and expansion of present fire control programs--a State job with Federal help.

B. Prompt completion of physical land classification and social economic inventory--State job.

C. Prompt completion of Federal acquisition program.

D. Establishment of a large scale public works program for forest restoration--largely a Federal job.

E. Inauguration of a selective cutting program in present saw timber stands--Federal job.

F. Expansion of research to find uses for "inferior" woods--Federal and State job.

A Regional Coordinating Board, composed of representatives of Federal, State, and other agencies, is recommended by the report. Until such time as this is formed, the present Regional Committee will function when needed.

THE EDITOR DISCOVERS

C. C. Hill, principal of the Days Creek, Oregon, public schools, makes the following comments about the series of units "Forest Conservation" issued by the Washington Office and distributed to school people by the Regions:

"Generally speaking, the course is well organized and well written. Very little difficulty was experienced in securing sustained interest on the part of the students. In fact, there was considerable disappointment because we necessarily had to curtail the amount of time given it.

"When there is such crying need for better reasoning along forest and wildlife conservation lines it has long seemed strange to me that more emphasis was not placed on the proper training of our young people while their minds are in a receptive state. The same problems were facing forest and game protective forces twenty years ago as they are today, yet in those twenty years, most of which I have spent in school work, very little progress has been made in presenting to the young folks, realistically and convincingly, the immense value of conservation."

"The course of study your Service has prepared certainly is a step in the right direction and, in my opinion, should be expanded and enlarged and included in our regular school curriculum as one of our compulsory social studies. It could easily be combined with studies of all our natural resources to make an interesting and highly valuable social subject.

"We used the subject matter contained in the course in two classes--biology and orientation--and found that high school students from the ninth grade to the twelfth were very much interested because it concerned matters of which they had intimate personal knowledge.... Our experience here has been that both students and instructors like the course."

- - - - - - - -

National Forest changes covered by recent Presidential Proclamations are as follows:

No. 2355, signed by President Roosevelt on September 6, added 231,500 acres to the Chattahoochee National Forest.

No. 2356, signed by President Roosevelt on September 6, added 43,331.83 acres to the Cache National Forest.

No. 2357, signed by President Roosevelt on September 6, established the Shawnee National Forest to include the former Shawnee and Illini Purchase Units. Gross area: 786,607 acres.

No. 2362, signed by President Roosevelt on September 11, established the Mark Twain National Forest to include the former Gasconade, Gardner, Pond Fork, and Table Rock Purchase Units. Gross area: 1,349,628 acres.

No. 2363, signed by President Roosevelt on September 11, established the Clark National Forest to include the former Clark, St. Francis, Wappapello, and Fristoe Purchase Units. Gross area: 1,971,885 acres.

ARTICLES BY MEMBERS OF FOREST SERVICE APPEARING IN OUTSIDE PUBLICATIONS

Compiled by Washington Office Library

BRANSFORD, LOYD. Sliding drawer for instrument shelters. diagr. Jour. Forestry 37(8): 654. Aug. 1939.

BRUSH, W. D. The primary wood-using industry of the lower peninsula of Michigan for the year 1935, by Willett F. Ramsdell. 130p. illus. (Multilith). University of Michigan, School of forestry and conservation Bul. 8. 1937. (Book review). Jour. Forestry 37(8): 669-670. Aug. 1939.

BUCK, C. C., and HUGHES, J. E. The solvent distillation method for determining the moisture content of forest litter. illus., tables, charts. "Literature cited": p. 651. Jour. Forestry 37(8): 645-651. Aug. 1939.

BULL, HENRY. Increased growth of loblolly pine as a result of cutting and girdling large hardwoods. table. Jour. Forestry 37(8): 642-645. Aug. 1939.

COCHRAN, H. D. What price thinning and what value. Jour. Forestry 37(8): 659-660. Aug. 1939.

EYRE, F. H., and NEETZEL, J. R. Practical cutting methods for northern hardwoods. "Literature cited": p. 208. In Papers of the Michigan Acad. of Science, Arts and Letters. vol. 24, pt. 1. p. 197-208. 1939.

GOODELL, B. C. Soil freezing as affected by vegetation and slope aspect. tables, chart. Jour. Forestry 37(8): 626-629. Aug. 1939.

HIERONYMUS, G. H. The C. C. C. and wildlife, by U. S. Biological survey. 18p. illus. Government printing office, Washington, D. C. 1939. (Book review). Jour. Forestry 37(8): 670. Aug. 1939.

JOHNSON, F. W. Deer kill records - a guide to management of deer hunting. Calif. Fish and Game 25(2): 96-165. Apr. 1939.

JOHNSON, H. M. Trends in lumber production in Oregon and Washington. charts. Jour. Forestry 37(8): 620-622. Aug. 1939.

KIRKLAND, B. P. Oregon looks ahead, by V. B. Stansbery. 93p. illus. Oregon state planning board, Portland, Oregon. 1938. (Book review). Jour. Forestry 37(8): 669. Aug.1939.

KRAUCH, HERMAN. Factors affecting establishment of Douglas fir seedlings, by Leo A. Isaac. U. S. Dept. agriculture, Circ. no. 486. 45p. illus. Government printing office, Washington, D. C. 1938. (Book review). Jour. Forestry 37(8): 667-668. Aug. 1939.

MATTOON, W. R. Visual aids in teaching forestry - don't overlook still pictures. Jour. Forestry 37(8): 658-659. Aug. 1939.

NEFF, PHILIP. Valuation of national forest lands. Jour. Forestry 37(8): 598-600. Aug.1939.

SILCOX, F. A. Green belts in drought areas. Nation's Agr. 14(7): 4, 15. July/Aug. 1939.

TIEMANN, H. D. The contents of vessels of Fraxinus Americana with respect to the ascent of sap, by R. D. Preston. Annals of Botany n. s. 2: 1-22. 1938. (Book review). Jour. Forestry 37(8): 666-667. Aug. 1939.

SERVICE BULLETIN
Contents Confidential
FOREST SERVICE
U S

Vol. XXIII, No. 21 Washington, D. C. October 16, 1939

LIBRARY
RECEIVED
★ OCT 21 1939 ★
U.S. Department of Agriculture

HIGH FLYERS

By A. J. Radigan, Umpqua

A June morning was breaking as the Portland, Oregon, airport dropped away below a soaring 40 horsepower Cub airplane. Glenn Elsasser and Roy White were off for Davis Lake in the high Cascade mountains, blithely ignorant of the adventure which fate had placed between their little plane and its goal.

The sky over Eugene was slightly overcast. What matter? They had a tank full of gas; of course they could make it. So merrily they climbed above the low clouds.

A miscalculation or two and the situation rapidly grew less merry. Clouds, clouds, clouds. No Davis lake, and the gas tank soon to be dry. They had drifted south and were over the wild, heavily-timbered Umpqua forest.

Just when things began to look really desperate an opening appeared in the timber, and the fire guard at Dog Prairie looking up, was amazed to see a plane circling above his lonesome station. It flew away to the south, only to return a few minutes later. Impossible as the prairie appeared as a landing field, it was better than tree tops, so the pilot set the plane down.

One landing gear gave way as the wheels bounced across the rocky bunch-grass slope. Neither pilot nor passenger was even shaken, but the outlook seemed dismal as they surveyed their needs. Repairs, gasoline, and incidentally a place from which to fly away. They turned toward the isolated guard station for help, and they weren't disappointed.

A telephone call soon enlisted the aid of District Ranger Harold Bowerman, and very shortly repair parts were on their way from Portland, and a squad of CCC boys was hiking in with hazel hoes and shovels to smooth down a runway for the take-off.

And what a runway. Down a 25 percent slope for about 150 feet, and then up against rough, rocky ground which no landing gear could contact and survive. Just 150 feet of runway. and the altitude 6000 feet. Could it be done?

The plane was repaired while the CCC boys did their best with the runway. At last all was ready. The smaller of the two pilots, Roy White, weighing 125 pounds, handed out his leather coat, a sweater, his pistol, every ounce of excess weight, and settled into his seat.

Four men held the plane back while the motor was thoroughly warmed. Then they waited for a favorable breeze. At last it came. The motor roared, and at the drop of the pilot's arm all hands let go.

A dramatic moment indeed! Life or death. All knew that one bobble would be enough to bring disaster to the little plane and her small pilot on that beautiful green hillside, with the sun lowering behind distant mountains.

The plane bounded down the steep hill and rushed at the rocky terrain which marked the end of the runway. With no more than a split second to spare it nosed sharply into the air, dove through an opening in the trees and disappeared over a deep canyon.

A tense silence covered the ground crew, lifted at long last by a big whoop as the little plane climbed into view, dipped in salute, and roared off to seek happier landings.

Thus closed an episode wherein was revealed a new sort of service for Uncle Sam's green-clad foresters and his CCC sons in denim. What next?

THE VOICE OF PUBLIC SERVICE

By S. A. Nash-Boulden, Los Padres

Regularly during noon hour each Monday, the announcer from Station KTMS in Santa Barbara gives this call - "The Voice of Public Service."

This program is sponsored by the Governmental Services Club, composed of heads of departments operating within the County. Many members of the staff of Los Padres National Forest belong to this club which has been in existence for several years. Its entry into the field of radio broadcasting, however, is comparatively recent. Starting on January 24, 1938, a 15-minute program has been given every Monday, with few exceptions, by some member of the club. The purpose of the broadcasts is to acquaint the listeners of KTMS with the various types of public service given by the more than twenty organizations represented in the Club.

This service covers a very wide field: the Agricultural Extension Service, Agricultural Commissioner's Office, the Health Department, County Health Department, Agricultural Conservation Association, County Veterinarian, County Forestry Department, State Division of Oil & Gas, Santa Barbara Water Department, Smith-Hughes Teachers' Association, Santa Barbara County National Farm Loan Association, State Fish & Game Commission, County Planning Commission and Public Works, County Sealers of Weights and Measures, County Probation Department, County Welfare Department, California Employment Service, Santa Barbara Recreation Department, County Road Department, Soil Conservation Service, National Park Service, and County Purchasing Agent's Office.

The Forest Service has given eight major feature programs of fifteen minutes, and many shorts and announcements of one-to five-minute periods. There is a lot of work in getting these broadcasts together, as only he who has written one knows. They must be of interest to the listeners and, while broad enough to cover the entire Forest, must follow closely county and community welfare. Our first covered "The U. S. Forest Service and What it Does".

Following this came "The Civilian Conservation Corps"; "Fire, its Prevention and Suppression", in a dramatic form, with radios calling and sirens screaming; "Wildlife and its Relation to Public Interest and Pleasure"; "The Business Activities of both the Supervisor's and District Ranger's Office"; "The Construction Program" by our Forest Engineer, that told of roads, trails, telephone lines, camps, water systems, etc.; then came a dramatized travelog entitled "The Service of Supply", that took the listener through the warehouses and shops, covering everything from repairs to equipment - to a hurry-up call for help in men and supplies on a going fire. Lastly,"The Daily Log of a Forest Ranger" - a 24-hour day that was full of excitement. Our next will be a summary of the highlights of the year 1939 and will be given at the close of the year.

The shorts and special announcements are limited, of course, to some specific topic such as the opening of hunting or fishing seasons; the necessity for constant care with fire during the hot, dry summer months; an invitation to use the public camps that are easily accessible over week-ends; suggestions for horseback or hiking trips, etc.

The Associated Governmental Services Club meets monthly and our association with the members of the various heads of departments represented is of mutual interest. Members give five-minute talks on their activities or problems. There is much easy, pleasant, though sometimes controversial, discussion around the luncheon table.

The club plans to continue the broadcasts indefinitely. It believes it is an excellent means of telling the people of the county of the work of its members and what their particular jobs do for the people at large. We welcome the opportunity to give them a better picture of our own policies, objectives, and regulations, and feel that it will increase their interest in the work of the U. S. Forest Service everywhere.

ANNUAL FORESTRY PICNIC AT BESSEY NURSERY

By A. B. Hastings, Washington.

For thirty years Nebraska forest enthusiasts have gathered together at the Bessey Nursery to celebrate accomplishments and to renew their faith in this notable experiment of establishing a forest on the sand hills of Nebraska.

This year's gathering was on Sunday, September 17, and some 1250 people poured in from all parts of Nebraska. One man was found who had attended each year, and this was his thirtieth consecutive picnic.

Forest Supervisor Dayharsh and his men demonstrated the major steps in establishing seed beds by two-foot movement of the bed leveler, the planter, the roller, the sander, and the acid spray. In the transplant bed a single row of transplants was put in for each group of visitors, and the tractor drew up the cable with digger attached a couple of feet to illustrate the removal of trees for field planting, an unusually successful demonstration of nursery practice.

Following a picnic lunch from baskets brought by the visitors, the formal program was facilitated by an address system which worked. Extension Forester Watkins presided over the meeting most skillfully. Mrs. H. G. Bogert made an excellent address which in part was a dedication of the memorial plantation recently established on the Nebraska National Forest by the Nebraska Federation of Women's Clubs.

A highlight in the proceedings was the demonstration planting by the State Championship 4-H Club team. This team of 14-year-old boys trained by Assistant Extension Forester Maxwell did a beautiful job of planting demonstration on a large board by means of models of farm buildings and synthetic shrubs and trees, building upon the bare board a complete and attractive set-up of improvements, climaxed by a fine set of windbreaks.

After the meeting nearly all those present drove through this 15,000-acre man-made forest and looked down upon it all from the lookout tower, a rather thrilling experience.

Region 2 was well represented by Messrs. Cochran and Higgins, the latter speaking briefly from the background of his long experience with these people and this project.

Mr. and Mrs. Bogert drove the 300 plus miles from Akron, Colorado, to Halsey in the morning and back home the same distance in the evening in order to be present.

(Mr. Hastings represented the Washington Office at the picnic. - Ed.)

SMOKE CHASING A LA PARACHUTE

By R. D. Daigle, R-5

In the Service Bulletin of July 24, David Godwin of the W.O. Fire Control office writes on the proposition that fire fighters might take to parachutes in experimental and perhaps even practical fire control. Why not? Perhaps this idea has much saner elements than appear on the surface, or that pragmatists would have us believe.

Basically, we are not looking for a Soviet counterpart in national defense as foresters see it. Some militarists tell us the Soviet plan for dropping lightly equipped soldiery is a little cockeyed, even for the "bear that walks like a man." We don't profess to know. And by the same token, we shouldn't, nor can we, prophesy whether or not a scheme to drop a moderately equipped fire fighter from an airplane is going to work with any degree of success.

Our next move, then, is to take some action to see if maybe there isn't something practicable in the idea of those who champion the "fire 'chuter." Certainly, if you can cut down one-half the elapsed time of a smoke chaser by giving him an airplane ride, a parachute, and inciting him with the will to jump, considerable FF funds as well as forest resources may be saved. On the other hand, all this carries the provisions that the parachute will open, that the jumper doesn't get hung up in a snag, or that he be forced to straddle the edge of a cliff. Any volunteers?

Advice to the Newcomer

By Angela C. Janszen, Washington

After reading the article "More on In-Service Training" in the Service Bulletin of September 18, it appears that it would not be amiss for some of us, who have profited by the untiring efforts of our superiors and fellow workers to acquaint us with the mysteries of the Forest Service, to lend a helping hand to the newcomer.

It is true, her first day spent in a "pool" will, no doubt, prove to her how little she knows about forestry, but the first day--and even the second and third day--in any new enterprise is filled with strange terms and ideas. A construction company, for instance, does not hire a stenographer and then put her through a Construction School so as to familiarize her with construction terms. She is given an outline of her duties and then is expected to figure out the intricacies of the business for herself. This can be done by examining the files, paying close attention to conversations in which the business is discussed, studying some publication about that business, or reading the trade journals that may come her way. One of the most satisfactory means of gaining information about any business is by asking questions about situations which come up in the progress of the work, giving special attention to the explanations and making mental or written notes of those explanations.

All of the above holds good for the newcomer in the Forest Service. Among the personnel are many trained foresters capable of answering any and all questions dealing with forestry of any kind, and specifically with the practice of forestry on the National Forests and in the various States. I have yet to find one of these foresters who has not gone out of his way to give an understandable answer when asked a question about forestry. Just ask the "boss" a question and see how anxious he will be, not only to answer it but to make sure you understand it.

The Forest Service Library has a wealth of information available to anyone interested in the subject of forestry. The most condensed and complete information on the Forest Service will be found in the "Forest Service Bible" entitled "A National Plan for American Forestry"--commonly known as the Copeland Report. Read it thoroughly, and then let "an interested visitor waiting for the 'boss'" ask for information about some activity or function of the Forest Service and see how easy it will be to give the data requested or at least know where to locate it.

The Department, being cognizant of the need for training for beginners, has arranged an educational program consisting of one lecture given the first Monday of each month for the benefit of employees who have been appointed to positions in the Department during the previous month. The lecture covers the history, program, and organization of the Department and is given by several members of the Secretary's Office. An educational movie depicting some phase of the Department's program is also presented. In this one lecture, it is not possible, of course, to cover much of the Forest Service activities but it is the consensus of those who have attended that a similar lecture, expanding the Forest Service program and organization, would be most helpful.

Incidentally, the Graduate School is offering a course entitled "Forest Policy" which, I am told, would be of much interest and value to Forest Service personnel. If a sufficient number of persons indicates interest in this course, a class will be held during the first semester. Let's register for this course and learn what we can about a most interesting subject!

WHY "IN-SERVICE" TRAINING FOR STENOGRAPHERS?

Anonymous

A recent article on "More On In-Service Training" may not have been written seriously. However, it provides an opportunity to suggest that anyone who really wants to inform herself as to what forestry is all about can do so very easily.

Naturally things seem strange when embarking on a new job, in the Forest Service or outside, and a green stenographer should not expect to have forestry information predigested and poured into her all at once. It is a gradual process. Old-timers have found the technical men only too glad to explain unusual forestry terms as they arise in the course of the work.

After the new stenographer has served an apprenticeship in the typewriting section learning Forest Service standards and technique; is on familiar terms with the Forest Service Manual, which is an excellent and necessary textbook; and has read some of the interesting pamphlets written in simple language for the novice, she should have a broad understanding of the job to which she has been appointed.

During apprenticeship a splendid opportunity is usually offered a new comer in the way of details to different offices which enable her to familiarize herself with the various phases of forestry work. Should she not be content to leave the whys and wherefores to the graduates of forest schools? A secretary to a physician is not supposed to know all about diseases in order to talk to visitors while waiting to consult her employer. It seems hardly necessary for a secretary to discuss intricate forestry matters with outsiders waiting to see the "boss."

Therefore, getting down to brass tacks, some of the more experienced members of the Forest Service feel that familiarity with the pages of the Manual recently furnished to everyone, in order to insure uniformity in the preparation of material, is more important than a mere superficial knowledge of forestry. That will follow just as quickly as the green stenographer will let it. It is up to her.

THE EDITOR DISCOVERS

The following resolution was adopted by Veterans of the Spanish-American War in their national encampment at Atlantic City, New Jersey, on September 13:

"The United Spanish War Veterans long have recognized that the restoration, protection and conservation by wise use of forests, soils, waters and other related natural resources, are necessary to the maintenance of the material strength of our Nation, to the happiness and welfare of our people, and to any sound policy of national defense.

"We therefore witness with profound gratification the marshalling of the united strength of the great organizations of American Veterans behind sound and constructive action by Federal and State governments in advancing the conservation of such natural resources and in the securing of public cooperation on to such ends.

"We are grateful for the extension of conservation teaching in the schools, for the encouragement of private owners to adopt conservation practices, for the continued good work of the C.C.C., for the growing understanding and cooperation of our citizens generally in these matters, and we pledge ourselves to continued support and leadership in the conservation cause."

- - - - - - -

"Forestry and Lumbering" is the title of a new school textbook by Josephine Perry and Celeste Slauson. It is designed "not as a conclusive reference book on forestry, but as factual material simply told to interest grade-school pupils in forestry work." As a historical background for present-day forestry in the United States, the book begins by describing briefly the history of forestry in Europe. The rest of the book is devoted to tracing the progress of the lumbering industry and the growth of forestry in America. The book contains some 120 pages and is beautifully illustrated. It is published by Longmans, Green and Company of New York and sells for $1.50 per copy. The authors consulted various Forest Officers in the preparation of the material and used a number of Forest Service pictures.

- - - - - - -

Four sandwiches--and thirty hours fire fighting! Such were the emergency rations of thirteen Region 1 firefighters on the recent Roaring Lion creek blaze.

The Stevensville Northwest Tribune tells the story:

The men left Stevensville Monday night and arrived on the fire at 5 o'clock the next morning. They proceeded to the top of the mountain and took up work on the fire. At noon a plane dropped four sandwiches per man and some water, leaving a note that it would be back that evening with supplies. While making the trip for supplies the plane crashed in the canyon; Assistant Supervisor Sutliff was the only man that knew about the crew on the mountain top.

"The fire fighters worked Tuesday afternoon, that night and all day Wednesday without food. . . About 6 o'clock Wednesday evening a plane dropped plenty of provisions for the tired and hungry workers. While they had a supply of fresh beefsteak for the menu, it is understood that the first meal was Dinty Moore's Irish stew which, outside of a can opener, needed very little fixing to tempt the palate."

- - - - - - -

The following unsolicited accolade from Mr. Harlan P. Kelsey, Sec'y-Treas. of the American Joint Committee on Horticultural Nomenclature has been received by a member of the Forest Service Tree Name Committee:

"With all due respect to those who are now and in the past have jumped into the plant name situation, your Tree Name Committee of the Forest Service is the only one that ever really came across with the goods. We have added very few individuals who have stuck by in an intelligent way, but nearly all the others have been mere critics without constructive suggestions."

- - - - - - -

"DAD" GREENLEY RETIRES

Mr. Griffin Greenly, commonly known as "Dad" and "Pop", retired September 30, 1939, after working in the Atlantic Building in the employ of the building owners for more than 40 years. Old-timers in the Forest Service remember him as far back as 1902. His employment as engineer of the building antedated 1900 and in later years he was assigned the less arduous work of elevator operator. Across the many years he came to know and be known by many Forest Service members. He is gifted with a noteworthy memory for names and faces and, among other things, took keen delight in telling old-timers the exact year they came to Washington to work in the Atlantic Building when even the old-timers themselves had temporarily forgotten.

In appreciation of his very long period of service in the Atlantic Building, where the entire Forest Service was housed for approximately 33 years and where some Divisions of the Forest Service are still housed, the Acting Chief, Forest Service, addressed the following letter to him:

"Dear Mr. Greenley:

"I have recently learned of your pending retirement from active work in the Atlantic Building where you have worked for so many years. I am informed your employment there dates back to around 1900, and perhaps even before.

"While you have never been employed directly by the Forest Service, still over the long period of time you have worked at the Atlantic Building, first as engineer and later as elevator operator, you have made many friends in the Forest Service and will long be remembered by them for your faithfulness to employers, your attentiveness to your job, your pleasant disposition, and for your helpful advice to all who needed it. Your record of more than 40 years work in the Atlantic Building is truly a fine record and one of which you may be justly proud.

"The Forest Service wants you to know that all its members, old and new, whom you have served in one way or another in their daily tasks there in the Atlantic Building across these many years wish you continued good health and much happiness in the retirement years that are now about to begin for you.

Sincerely,
E. E. CARTER
Acting Chief, Forest Service."

At an informal farewell to "Dad" on September 29, at which about 50 employees were present, he was presented with an attractive folder, appropriately illustrated by Rudy Wendelin, and a purse of $39 contributed by Forest Service employees in Washington. Mr. Greenley asked me to express to the Forest Service through the Bulletin his thanks for the many courtesies extended him by the Forest Service these many years, for the purse and folder, and for his letter from the Acting Chief, which I believe he prizes most of all, and to say "so long" to his many Forest Service friends in Washington, and also to those who knew him here but have since transferred elsewhere. We will miss "Dad" Greenley around this place but wish him health and opportunity to enjoy his well-earned rest.

H. C. Maaske

SERVICE BULLETIN

Contents Confidential

Vol. XXIII No. 22 Washington, D. C. October 30, 1939

SOIL CONSERVATION DISTRICTS IN FLOOD CONTROL?

By Chas. A. Connaughton
Rocky Mountain Forest and Range Experiment Station

The Service Bulletin contained an article recently, "States Rights and Conservation Districts," which advocates and encourages the use of soil conservation districts, or something patterned after them, to overcome many difficulties encountered where States rights are concerned. Soil conservation districts in flood control were used as an example of the appliation of the principle propounded. In my opinion, based largely on western experience, the example is unfortunate, indeed, and should be reconsidered.

First, what is the purpose of soil conservation district laws adopted by many States and patterned after the standard act suggested by the Department of Agriculture? Briefly, it is to effect proper land use. Soil is to be held in place and moisture conserved. Incidentally, flood control benefits may accrue but to believe that districts established and maintained by upstream landowners are the instruments to obtain flood control even on small watersheds is, because of practical difficulties, completely out of the question. Floods and flood damage, including siltation, is one thing - soil and moisture conservation on individual farms and districts is another.

There is no doubt that soil conservation districts would be a panacea to land ownership problems in flood control work, if damages were incurred at the point where flood waters and silt originate. Actually this is not the case. The man that is really suffering flood damage may be remote--one mile or a thousand--from the flood source and, whereas the flood sufferer would be delighted to form a soil conservation district, the upstream landowner may logically refuse to vote regulations upon himself to protect someone that may be even unknown and unseen.

It may be said that the argument against soil conservation districts is confused because a distinction is not being drawn between upstream and downstream flood control. This is true, but can upstream and downstream engineering be separated? The obvious answer is "No". Flood control is a single problem. It has phases, of course; but in considering anything as far-reaching as a legally constituted district as an instrument, the problem must be a single entity. Try and justify economically a land use program for flood control without using detached benefits. Insofar as most land owners are concerned it can't be done. Soil and moisture conservation per se may be justified but in the eyes of the landowners who obviously must comprise any soil conservation district, this justification can rarely be based on flood control.

I want to see the Department of Agriculture flood control program develop into the great undertaking that it should. I have a feeling, however, that one of the strong retarding factors that can be employed is the use of soil conservation districts generally in the flood control program. Obviously, there will be places where the district will be helpful but two things as basically different in purpose as flood control and soil conservation districts cannot be expected to supplement each other.

Nor will the difficulties of the soil conservation district for flood control be overcome by expanding its function to include water, forests, or range. If flood control is wanted and some kind of district organization is required, lets devise or use existing flood control districts and not attempt to fit a square peg in a round hole by using an instrument conceived for another purpose.

A FIRE PREVENTION MESSAGE ON DOMINO CIGARETTE PACKAGES

Last August the Washington Office received from a citizen of Los Angeles this very brief but significant message, "No wonder we have forest fires." Enclosed with this note was the outside wrapper from a package of Domino cigarettes which bore the reproduction of a letter received by the company from a Mr. William Martin reading: "Last year while on a hunting trip with my father, I ran out of cigarettes. A forest ranger gave me a Domino and I have been smoking Dominos ever since."

Upon receipt of this note the Division of Fire Control wrote a letter to the Reed Tobacco Company, Richmond, Virginia, Manufacturer of Domino cigarettes, and gave it some pertinent facts regarding forest fires and forest fire prevention, with the suggestion that it might be well to replace the letter now reproduced on Domino packages with a fire prevention message.

A reply to the letter was received immediately from the manufacturers saying that they would be delighted to cooperate "in every possible way in an effort to eliminate the staggering loss by forest fires," and requesting that they be furnished with approximately fifty words which, they said, "it is altogether likely that we will be able to use on the Domino package some time in the future."

The following was immediately forwarded to the Company:

"CARE!

"Every year in the United States over 40,000 forest fires result from carelessness with matches and cigarettes.

"Enjoy your cigarettes and your forests, but don't let the one destroy the other.

"Break your match in two before you throw it aside. Be sure your cigarette is dead out before you flip it away."

Definite assurance has been furnished by the Company that it will use this copy but, inasmuch as the Company has completed its plans for the next several months, the message will probably not be used until some time in the early summer.

RADIO LABORATORY PROGRESS NOTES

By A. G. Simson, R.6

The new Type T ultra-high frequency radio phone has had one season of field use with satisfactory reports from Forest Service operators as well as from some of the States such as New York and Oregon. Radio engineers were concerned as to just how this radio phone would work out in field use due to the fact that it is not equipped with a loud speaker but instead is used as a signalling device to call the operator.

In line with a general effort to develop the use of ultra-high frequencies in forest protection communication, an automatic relay unit has been developed, has gone through the laboratory tests successfully, was tried out on one large fire, and is now undergoing field tests. It is expected, if this unit satisfactorily meets all tests, that it will operate without attention for periods of two or three months. The application of these instruments will be to locate them on rather high prominences so that stations that are not inter-visible can communicate with each other through this automatic relay device.

During the past field season laboratory personnel were able to try out various species of new equipment as well as observe the operation of our regular radio phones on a number of large fires.

The very much needed mobile ultra-high frequency receiver has not yet been produced in final form. The only apparent problem left is the matter of mechanical arrangement of the component parts. The development of this receiver should have been effected at least two years ago but was delayed because of attempts to find a suitable commercial product or to induce some manufacturer to design a satisfactory unit. These efforts were unsuccessful.

The radio handbook has finally been produced and already supplements and amendments have been prepared for distribution.

Due to confusion resulting from applying the same type designation to the semi-portable Type I radiophone and mobile Type I radiophone, the Type I mobile radiophone will hereafter be designated as the Type K radiophone.

The laboratory was asked to develop an instrument for detecting the presence of spikes, nails, and other metallic objects in logs purchased by the NETSA. After considerable delay and the encountering of some unforeseen difficulties, such an instrument was developed.

There has been a moderate amount of equipment purchased as evidenced by the fact that since January 1 the laboratory personnel has inspected 433 units.

A WORD OF PRAISE

In a letter to Mr. Silcox, Felix L. LaMar, sales manager of the Holbrook Lumber Company of Springfield, Massachusetts, commends the Forest Service for the high degree of efficiency shown in the northeastern timber salvage work. Mr. LaMar writes: ". . . I want to say to you, Sir, in all frankness and sincerity that in my thirty years of the lumber business I have never come into contact with a group of governmental employees who are so efficient and so conscious of their duties to the public as those in your particular department."

SAF NATIONAL MEETING IN SAN FRANCISCO

The California Section of the Society of American Foresters is extending a cordial invitation to all foresters and others interested in forestry to attend the national meeting of the Society in San Francisco, November 23, 24, and 25. This 39th annual meeting will be officially opened at the St. Francis Hotel on the morning of November 23rd by Dr. C. F. Korstian, President.

"The Next Thirty Years of Forestry" will constitute the theme of a program of nationwide interest. Forest policies ranging from government ownership to laissez faire will be debated by well-known speakers from Federal agencies, State agencies, and forest industries. Taxation allowances for selective logging, fire policies for private industries, and prospective forest research developments also will be discussed. The leadership of one session will be given over to younger members of the Society to promote discussion by the next generation of foresters.

Field trips to numerous points of interest throughout California also have been arranged for visitors and members. Trips to parks and lumbering operations in the Coast redwoods, lumbering operations in the Sierra pine region, the Yosemite National Park, and erosion-streamflow experiments in Southern California are among the sight-seeing trips which may be taken. Entertainment for visiting ladies also includes luncheons in San Francisco and tours of the San Francisco Bay Region.

The California Section extends this hearty invitation to visit California, so that foresters may enjoy the fellowship and the stimulation of this national meeting in the unique and picturesque surroundings of San Francisco.

THE RANGERS WENT OVER THE MOUNTAIN

By Jno. D. Guthrie, Washington

Any school child in Virginia, at least, knows of the Knights of the Golden Horseshoe and of the historical occasion in 1716 when Governor Alexander Spotswood organized an expedition to look over what is now known as the Blue Ridge Mountains in Virginia. But the important part played by the Rangers in the expedition is not generally known. And they did have Rangers in that day in Virginia (see Bulletin of January 10, 1938), even back to 1691.

In 1716 the settlement of Virginia was just a narrow strip through the Tidewater. West of that, through the Piedmont and on to the Blue Ridge and beyond that the Alleghenies, all was terra incognita. It was a trackless country, except for the Indians and what few hardy trappers and Rangers who had ventured into that wilderness. Some writers have classed Spotswood's trip as largely a hunting expedition, or possibly a pleasure jaunt. For that day it was hardly either and moreover, historically, it did have a more serious purpose. Witness the records of the Virginia Governor's Council of June 12, 1716:

"Whereas the Governor was pleased to inform this Board that Some discoverys have been made by the Rangers of a Passage over the Great Mountains to the Westward of this Colony, & that he intended next August to Send a Great Body of the Rangers upon further discoverys which he Judges may be of great advantage to this Country, the Council are of the Opinion that all Suitable Endeavors ought to be used & encouragement given for prosecuting the Said discoverys as being for the benefit of the Colony."

Note that the Rangers had been through this region before, and probably through the "Passage" (generally agreed as Swift Run Gap). True, this expedition was not one of original discovery, but it may have been one of the bases for the British claim to the entire Northwest Territory, which at one time included all the country to the Pacific Ocean, even including California.

Accordingly, the Governor set out on his expedition from Williamsburg on August 20, 1716, accompanied by his young English friend, John Fontaine, and their servants, and rode as far as Germanna in present Orange County. The Governor traveled in his chaise, the others on horseback. At Germanna they met the rest of the invited party, four Meherrin Indian guides, and two companies of Rangers, each consisting of one officer and six men. There were ten or twelve gentlemen in the party, but altogether there were 63 men and 74 horses. The total estimated distance of the round trip was 445 miles, - quite a little horseback trip even today, though the trip took from August 20 until September 17.

John Fontaine (son of a minister) kept a journal of the trip, realistic in some of its details. The Virginians of that day "did themselves rawther well" as an Englishman would say, certainly as far as liquid refreshments went. Of course the trip was one of discovery, and new land was to be claimed for the King, and so that meant toasts had to be drunk, and that meant wine had to be carried along. They did all that. The Minister's son gives in some detail what they did carry, and what they did with it, upon reaching the summit of the Blue Ridge. He writes in his journal:

"The Governor took possession of this place in the name of and for King George the First of England. We had a good dinner, and after it we got the men together, and loaded all their arms, and we drank the King's health in Champagne and fired a volley - the Princess's health in Burgundy, and fired a volley, and all the rest of the Royal Family in claret, and a volley. We drank the Governor's health and fired another volley. We had several sorts of liquors, viz., Virginia red wine and white wine, Irish usquebaugh, brandy, shrub, two sorts of rum, champagne, canary, cherry, punch, water, cider, etc." Parenthetically, Usquebaugh was simply Irish whiskey, Usquebaugh being Celtic, literally for water (as vodka means water). From "Usque" our word whiskey is derived.

Not that the above bountiful supply of spirits had anything to do with it, but on the return trip one of the Gentlemen, Colonel Clouder, fell off his horse into the river, whereas all the party laughed heartily, and the stream was promptly named Clouder's Run; this incident, together with leaving two of the men sick with measles for the Rangers to look after, were the only mishaps of the trip.

The Knights rode through the "Passage", down to the Shenandoah River (which they named Euphrates) about a mile west of the present-day Elkton, then returned through Swift Run Gap and back to Germanna and Williamsburg. They left the Rangers to go on further West and to make new explorations.

The Rangers had been over this country before, and they undoubtedly had picked out pretty well the route for this group of notables. They undoubtedly had picked out good camping spots, where there was wood and water. They performed other useful services, as Rangers can and do, for Fontaine speaks several times of the Rangers going out and bringing in venison for the party - and 63 men could eat a lot of venison on a trip of almost a month! Another thing, the Rangers went on beyond after the Governor's party turned back, to explore more wilderness. It was a Rangers' "show me" trip, perhaps the first American "show me" trio by Rangers?

THE EDITOR DISCOVERS

On October 15, Dr. Hardy L. Shirley assumed new duties as Director of the Allegheny Forest Experiment Station succeeding R. D. Forbes who will devote his full time to special assignments.

- - - - -

"Helping God to Make a Tree," an article by Representative Karl E. Mundt of South Dakota in the September-October issue of Outdoor America, discusses the prairie states forestry projects from a somewhat different angle--their aid to wildlife. "Conservationists generally understand," declares Representative Mundt, "that if the wildlife population is to be brought to the desired level it is necessary to establish an environment in which the game birds and animals will thrive and multiply. The shelterbelts are fitting into the solution of that problem in an admirable manner, for they provide excellent game cover on land removed from crop production . . . so that no extra demands are made on the farmer." Recognition of the value of the shelterbelts for wildlife propagation has come from the state game commissions, and in some of the States they are designated as game refuges. The Kansas game commission is planting quail in some Kansas shelterbelts and the Texas Agricultural and Mechanical College extension division has made wildlife demonstration areas of the windbreaks in that State, Representative Mundt says. Three Forest Service photographs showing interior views of shelterbelts illustrate the article.

- - - - -

The County Planning Committee of Pierce County, in northern North Dakota, has requested that Pierce County be included in the 1941 shelterbelt planting program. The Committee's petition says, in part: "It has become apparent that there is a tendency to move the western boundary of the belt eastward in areas of higher rainfall. We recognize this as important; however, we have an area that is distinctly favorable for tree growth. We have many fine cottonwood windbreaks that are 35 years old. Under our Land Use Study . . . this area is considered unsuited to grain farming. The occupants of this land will gladly contribute any amount of land for shelterbelts, and give them the attention needed."

- - - - -

The Ouachita National Forest reports that the Little Rock Municipal Water Works has issued an envelope stuffer which it mails out with all water statements. The little folder calls attention to the relation existing between the water drawn from the tap and the forested watershed.

- - - - -

In the October 3 issue of THE FILM DAILY appeared this review of the Forest Service movie, "4000 Gifts of the Forest". "When Cal Carello and Rod Radford ground their cameras under the watchful eye of Director Carl Stearns Clancy there resulted what is said to be the Government's first production in color, Dufaycolor being the medium. Locales chosen for the footage, which interestingly discloses the myriad products which mankind fashions from the trees, were the Snoqualmie and Mount Baker National Forests. Beneficence of the woodlands is conveyed strikingly by a parade of twenty picturesque floats, on each of which a phase of manufactory from wood is revealed. This was obviously a difficult short to make, and Clancy, who not only directed it, but wrote the script, has accomplished most creditably the task assigned to him. The footage is so deftly fashioned, indeed, that it is natural for the slightest of flaws to come to light under professional eye. These faults are few, one being register and the other, more serious, the need for accurate synchronization of the dialogue, which chiefly is dignified monologue. Notwithstanding, audiences will like this picture. It is eye-filling, colorful, instructive, and an auspicious beginning for Uncle Sam in the hues of celluloid. Photography generally is excellent, direction solid, and the staging of the forest pageant expert."

- - - - -

"Safe ways for prevention of forest fires" and "Safe ways for campers and tourists" are some of the topics dealing with forestry appearing in a newly revised edition of a book for elementary and Junior High Schools, "Safety Programs and Activities", by Florence Slown Hyde and Ruth Clara Slown.

- - - - -

Even a streetcar pass may carry a forest fire prevention message, as is evidenced by the September 17-23 weekly pass of the Portland, Oregon, Traction Co. Printed against a photograph background of forest trees is the message: "The Forest are crops - The harvest is homes! Help prevent fires." In one corner is a small seal of the Forest Service.

- - - - -

At the annual meeting of the Association of State Foresters, held at Lake Placid, New York, October 2-5, O. A. Alderman of Ohio was elected president; Perry H. Merrill of Vermont, vice-president; and Glen R. Durrell of Oklahoma, secretary-treasurer.

- - - - -

Secretary Wallace has added Leo O. Woolcott of Wisconsin to his personal staff as Assistant to the Secretary. Mr. Woolcott has recently been associated with John Gaus in a study of the Department, its work and organization, sponsored by the social Science Research Council.

- - - - -

"Forest Conservation in the Pacific Northwest" is the title of a new mimeographed pamphlet which has just been prepared by the R-6 Division of I&E. It is a reference handbook for high school socio-economic classes in Oregon and Washington, and is designed to be used in connection with the mimeographed unit course recently issued and approved by school authorities in both states. Section headings include: Foreword; Overview; Objectives; Forestry and Land Use Planning; Importance of Timber Crops in Pacific Northwest; Other Forest Values--The Multiple Use Theory; Sustained Yield Management; Forestry Agencies; Fire Protection and Reforestation; and References. The pamphlet is being distributed to Supervisors and to high schools which have initiated this curriculum project.

- - - - -

Of 510 young men named as project assistants in CCC camps during the July, 1939, enrollment period, 267 or 52% of the vacancies were filled by reclassification of junior enrollees to this status. This percentage has shown a steady gain each enrollment period since July 1938 (except for a large jump in April of this year when the 2-year limitation for enrollees went into effect and many well qualified key men due to be dropped were retained as project assistants).

ARTICLES BY MEMBERS OF FOREST SERVICE APPEARING IN OUTSIDE PUBLICATIONS

Compiled by Washington Office Library

BASSETT, R. E. Recreational use of the forest in the rehabilitation of cutover area of the Lake states. Jour. Forestry 37(9): 688-691. Sept. 1939.

BOMHARD, M. L. What palms grow in Louisiana. Part VI. illus. La. Conserv. Rev. 9(2): 35-39. Summer 1939.

CHAPMAN, R. A. Applicability of the z Test to a poison distribution. tables. Biometrika 30(1/2): 188-190. June 1939.

CHIDESTER, G. H., BRAY, M. W., and CURRAN, C. E. Growth rate and position of wood in tree as factors influencing kraft and sulphite pulps from jack pine. charts. Jour. Forestry 37(9): 680-683. Sept. 1939.

CUNNINGHAM, R. N. The meaning of the Lake states forest survey. table. Jour. Forestry 37(9): 698-700. Sept. 1939.

DAY, B. B., and AUSTIN, LLOYD. A three-dimensional lattice design for studies in forest genetics. illus., tables. Jour. Agr. Res. 59(2): 101-119. July 15, 1939.

DAYTON, W. A. An ecological glossary, compiled by J. Richard Carpenter. illus., appendix. University of Oklahoma press, Norman, Okla. 1938. (Book review). Jour. Forestry 37(9): 756. Sept. 1939.

EYRE, F. H. Silvicultural management of northern hardwoods. Jour. Forestry 37(9): 719-721. Sept. 1939.

GROSS, L. S., and HUBERMAN, M. A. The seed makes the tree. illus. Amer. Forests 45(10): 498-501, 523. Oct. 1939.

KOEHLER, ARTHUR. Heredity versus environment in improving wood in forest trees. "Literature cited": p. 686-687. Jour. Forestry 37(9): 683-687. Sept. 1939.

KNUTSON, C. E. The application of a land utilization program to the Chippewa national forest. Jour. Forestry 37(9): 738-740. Sept. 1939.

LE BARRON, R. K. The sportsman and the forest. illus. M. A. C. (Minn. athletic club) 24(12): 12-13. Sept. 1939.

MITCHELL, J. A. Accomplishments in fire protection in the Lake states. Jour. Forestry 37(9): 748-750. Sept. 1939.

MUNNS, E. N. Bioclimatics - The what and why. Comments on "Bioclimatics - A science of life and climatic relations", by A. D. Hopkins. U. S. Department agriculture, Misc. pub. 280. 1938. (Book review). Chronica Botanica 5(1): 5-8. Spring 1939.

PESSIN, L. J. Tree dwellers. illus. Amer. Forests 45(9): 456-457. 469. Sept. 1939.

ROSS, C. B. Wilderness resurgent. illus. Amer. Forests 45(9): 439-441. Sept. 1939.

TRUAX, T. R. The use of chemicals in forest fire control. table. Jour. Forestry 37(9): 677-679. Sept. 1939.

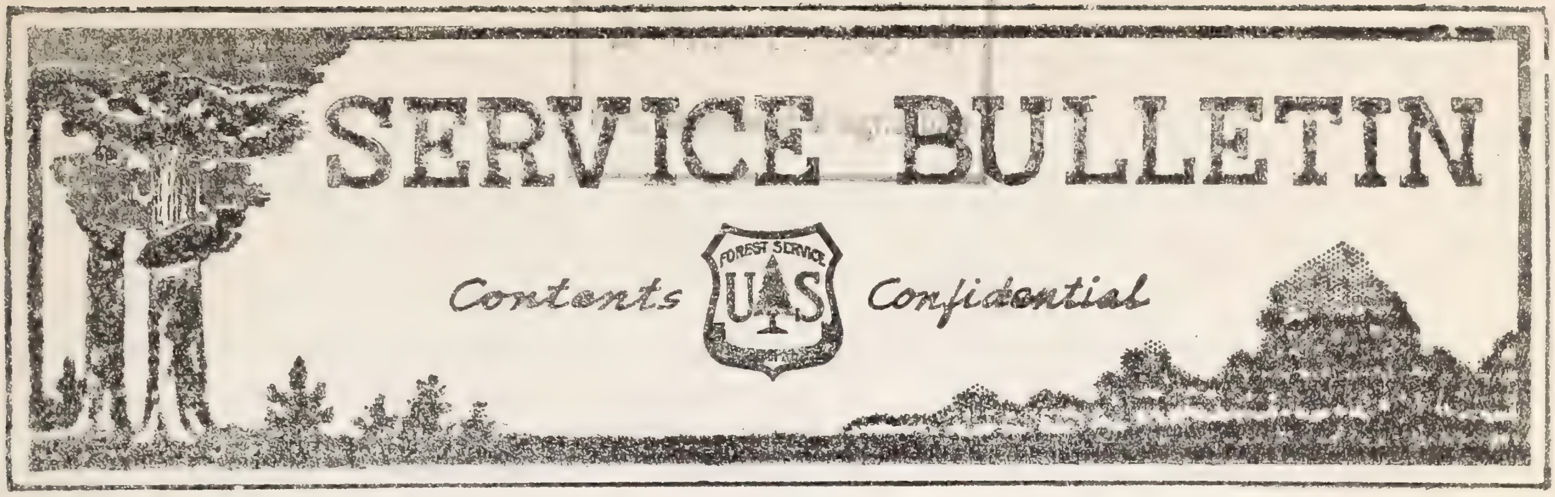
WALES, H. B. Forest planting in the Lake States. Jour. Forestry 37(9): 691-694. Sept. 1939.

WINSLOW, C. P. Trends and needs in modern wood utilization. Jour. Forestry 37(9): 674-676. Sept. 1939.

WOODS, J. B. Fire strikes again in the Tillamook. diagr. Amer. Forests 45(10): 514. Oct. 1939.

ZON, RAPHAEL. The human side of land use. Jour. Forestry 37(9): 735-737. Sept. 1939.

LIBRARY
RECEIVED



SERVICE BULLETIN

Contents Confidential

Vol. XXIII, No. 23 Washington, D. C. November 13, 1939

SOIL CONSERVATION FIRST STEP IN NEW WORLD DESTINY

(Excerpts from Address of Secretary of Agriculture Henry A. Wallace
before the Commonwealth Club of San Francisco, October 27, 1939)

In contrast with the destruction now going on in the Old World, we in the New World want to bend our efforts to constructive ends. Instead of spending enormous sums for national aggrandizement and the waging of war, we in the United States want our national energies to go into building for peace--not forgetting the needs of our national defense to make sure we can stay at peace. We want to carry on with the task we have begun--to bring stability and security and honest dealing into all our affairs. * * *

Now what are the American goals worth working for? What are the things we must do to make this, our own land, the Chosen Land?

We want to see abundance widely shared. What must we do to assure abundance for ourselves and our children and our children's children?

Our first concern must be the land itself. Our agricultural fertility, our forests, our watersheds, our entire national life are bound up with the welfare of our soil. When the productive soil is ruined, our civilization will be ruined, and our country will revert to desert and wasteland, like the ruined lands of Africa and Asia.

For many years, we did not realize our danger. Then, with dramatic swiftness, nature brought the lesson home. Five years ago last spring, when millions of tons of powdery soil were lifted by the wind from the thirsty plains and carried across the country and far out over the ocean, nature wrote her warning in the sky. She spread that warning even on the walls in thousands of metropolitan homes.

Not only with dust, but with water, has nature broadcast her ominous message. Floods in New England, floods in Pennsylvania, floods along the Ohio River, floods . . . in California--year after year we have been forcibly reminded of the crimes we have been committing against the soil. * * *

Apparently, the conservation of our soil and the preservation of our peace both demand that we place less emphasis than we have in the past on our century-old agricultural trade ties with Europe, and that we make as rapidly as possible those inevitable and necessary adjustments in our domestic program which will both save our soil and fit in with the fact that we are a creditor nation. We know it is possible to farm in such a way as to save our soil and at the same time produce crops to sell abroad in reasonable quantities. But we must not persist in trying to sell abroad merely for the sake of selling. We must not export our resources. The needs of our soil must come first.

In the last seven years we have made a splendid start in the direction of conservation of our soil. But it is only a start. If we are really to guard this fundamental basis of our national life, we must take more far-reaching measures than ever. We must, as a nation, give a larger share of our thought and perhaps expend a larger share of our money to stop completely the wastage of the productive soil which is indispensable to our national life. Great as the expense of such an effort is, the cost is not anywhere nearly as great as the cost of combating depression or actually waging war. And surely it is far better, by taking thought in time, to save our soil before it is ruined than to wait until it is gone and our once-fertile countryside is haunted with the ghosts of ruined farms and ruined towns. We want to keep them as healthy and productive farms, and happy, flourishing, prosperous towns.

Acting to stop the wastage of our soil is the first step, then, along the road of our New World destiny.

ACRES OF DIAMONDS

By Ernest O. Buhler, Washington

Mark Twain is supposed to have said that every man should have a wood pile in his backyard, but for the sake of neighborhood harmony, he should mind only his own pile and not meddle with his neighbor's.

Recently the amazing story of Parson Page's wood pile was discovered by a crew of research men. The dramatic story as gleaned from the original town records of Danville, New Hampshire, is as follows:

The Selectmen of the Township of Danville met in 1760 to elect officers and to act on the budget for the coming year. Among other things is this item: "To see how much money we will raise for Priching (preaching). Samuel Webster enters his Decent (dissent) against this vote of raising money." This budget reveals that the support of the parson was put first among the duties of the Selectmen. Later on it was voted to set aside a 75-acre forest for the use of the parsonage and the same year the people decided to build a meeting house (church) and the timbers were cut and hewn from this land. It was built by twenty-eight parishioners who dragged the material by oxen free of charge to the parish. The leaders had pews in the church, the common people used benches, and the slaves sat in the balcony. The next thing was to find a permanent minister and it took two years to locate the Reverend John Page. He was a young man, just graduated from Harvard. He took charge December 26, 1763 and his salary was 45 pounds sterling annually, the use of the parsonage lands and a wood pile of twenty-five cords cut in the Parsonage Forest and corded at his house.

Sometimes auctions were held for the sale of trees from this forest. These sales were of one tree up to eight or ten and so we find $8.00 paid for a single tree and $13.07 for eight hemlocks. At one vendue there is a record of one hundred sales, most of them for single trees. In the record of 1830 appears also this item "paid for venduing the income of the parsonage and wood and timber on the farm and for spirits, $1.22".

The following is a copy of one of the original auction bills found in the town records:

Articles

Timber and wood this day set up at public auction, March 19th, 1831.

1st Highest bidder to be the purchaser.

2d All sums less than one dollar ready cash.

3d All over one dollar a credit given for 8 months interest after with good security.

4 If two bids are alike it shall be decided by another bid.

5 The purchaser to have two years to take away his property.

6 If the purchaser refuses to take the wood or timber at his bid he shall pay the cost of the vendue.

Barnard Currier) Parsonage
John Page) Committee
Nath. Bradley)

The forest products were sold to individuals and the record shows small sales of $32.08, $179.75 and $99.65 and rent of pasture $12.00, etc. on down the years. Rent for pasture totals $1,068.77. Since 1830 the total receipts from the 75-acre parsonage forest fund are $34,880.28.

Where did this seemingly impossible income from only 75 acres come from?

The secret of this unusual financial history is found not in the practice but in the precepts of old Micawber, who said to little David Copperfield—"If you earn 10 pounds and spend 10 pounds and 1 pence, the result is misery. But if you earn 10 pounds and spend 9 pounds and 1 pence, the result is happiness."

And so these thrifty New England pioneer fathers actually practiced Micawber's philosophy of happiness. They realized that it was desirable to wrest out of the soil a little more than was necessary for current living so that the difference could bring additional income from the magic of compound interest. Hence, each time they sold a tree, a log, or a cord of wood, they salted down a small percentage of the receipts.

The Reverend Mr. John Page has gone and so have his children and children's children, although we found his diary the other day in possession of his great-granddaughter. However, the forest is still there. The original records indicate that all told it has yielded from forest products alone an income of $10,749.72. Net pasture rent amounts to $1,068.77. The shrewd city fathers, however, realizing that an empty sack cannot stand upright, commenced to invest a portion of their funds on interest and the interest income amounts to $23,061.79, making a total of $34,880.28. They have cash on hand, $9,316.89. For the last one hundred years the income averages a net of $4.45 per acre per year. As a sound community enterprise, this example is worthy of our consideration. It has not only yielded the above income, but the same 75 acres are still there and the forest is ready to produce another crop. It is true that a large part of this net is derived from interest, but by the same token, the income received came originally from the forest. If some of the money had been put back into developing and improving the forest, the net income from it would be a great deal more. The remarkable part is this—that while the forest is again renewing itself, the accumulated capital which they have on hand produces now an annual interest income of about $4.00 per acre per year net.

MONUMENTS TO MEN

By Edward Ritter, R. 7

I have recently returned from a 12,000-mile tour of the United States and Canada, during which I had occasion to visit numerous State and National Forests, Parks, and Monuments. The scenic grandeur of the badlands, deserts, canyons, and forests will long be remembered. Each change in timber type, geological formation, and other natural phenomena created intense interest throughout the entire trip. However, my greatest thrill was a repetition of nearly a decade ago, at which time I descended from an 8800-foot mountain summit to the valley floor below to gaze upon my future home—a Ranger Station—built by pioneers of the U. S. Forest Service many years before.

Homecoming in 1939 was in solitude but no less thrilling to me: No horses were in the pasture, no flag was unfurled, nor was there a wisp of smoke from the chimney. In fact, there were no changes evident since my last departure except the general run-down appearance of vacated buildings. The station had been abandoned in 1934 for more modern and centrally-located headquarters, although I was told it was used occasionally by emergency guards or for overnight stops by the Ranger.

This station and many others scattered throughout the National Forests of the West were built by men of sturdy body and courageous heart who pioneered for Uncle Sam over thirty years ago. Some of these men are still living, but many have passed over the Great Divide. How many old stations have survived the era of new development, I do not know. Surely many of the original cabins have escaped the wrecking crew or a highest bidder.

In tribute to those who offered the best part of their lives to the Forest Service, what could be more fitting in commemoration of their services than the maintenance (or restoration, if need be) of a Ranger Station built by these representatives of an earlier era, whether the building is used seasonally or only occasionally for official purposes? Possibly one station representative of a Forest, State, or Region would be sufficient, depending on various factors and conditions inherent within the area. Rangers must come and go but may their stations go on forever!

If this suggestion is N. G., skip it. If worth anything, postpone "Razing of Undesirable Structures."

CCC PLANTING STOPS A TRAIN

On October 3 the General Manager of the Chicago and Northwestern was in his private car making an inspection of his railroad near Gibbs City, Michigan. He saw a CCC tree planting crew alongside the right-of-way. He had the engineer stop the train, got the foreman out and watched the enrollees plant trees for about five minutes. He asked a number of questions as to species planted, expected survivals, etc. This was his first opportunity, he said, to watch a CCC crew at work. He is heartily in favor of the CCC program. (R-9 "Daily Contact").

OFF THE RECORD

(By C. F. Byrns in the "Southwest American", Fort Smith, Arkansas, September 30, 1939)

"A great many people in Arkansas will share with me a feeling of personal loss in the announcement that Henry R. Koen will be retired as Supervisor of the Ozark National Forest on October 1.

"Mr. Koen is being transferred from the post of active Supervisor to a newly created job as Regional Inspector of Operations for all the United States forests in the Southern Region. That means he will continue his active interest in the development of the forestry program in Arkansas, but will have to divide his time and his energies with other forests in the South. His headquarters will be in Atlanta.

"Among the many fine public servants I have known, there is none who commands more wide-spread admiration, affection, and respect than Henry Koen."

"Forestry has interested me greatly for a long period of years. It has seemed to me since I first began to sense the economic situation in this State that the forest resources of Arkansas are vitally necessary to its economic health. I have been concerned with the waste of forest resources which went on unchallenged for so many years. I have been impressed with the fact that forests constitute our one replaceable natural resource and that the policies of the State and of private owners of land have been so short-sighted in that respect.

"Harry E. Kelley of Fort Smith, a lifelong ardent advocate of forest conservation, first introduced me to the economics of sound forestry and started me thinking and investigating and writing on the subject. Very early in my investigation of forestry practices in this State, I encountered Henry Koen. He went into the Forest Service as a native son of the Ozark Forest, having been born near Harrison. He started as an assistant ranger on the Sylamore district of the Ozark Forest in 1913.

"During the 17 years he has spent as Supervisor, the Ozark Forest has been transformed. The whole area was burned over in the early twenties. The public attitude in the forest area was hostile. The long-time economic value of forest conservation and development was not easy to sell to the people who lived in the Ozarks. But the job was done by a continuous, patient, honest, and sympathetic administration of the forest by a man who understood the viewpoint and spoke the language of the people with whom he had to deal. The public attitude today is overwhelmingly favorable. The forest expands. Its products grow in value year by year. It has returned more than $1,000,000 to the treasury in receipts, and its value today is more than its entire cost over its whole history.

"A State forestry policy, established in 1933, has moved forward rapidly until today more than half the forest lands of the State are under intensive protection. As a member of the State commission since it began and now as its chairman, Mr. Koen is entitled to a large share of the credit for the State's fine forest program.

"The silver lining to Mr. Koen's transfer to a new post is that the forests of Arkansas will still be in the territory he will serve, and his advice and counsel and personality will still be available to Arkansas."

UNUSUAL FACTS FROM THE QUARTERLY CUT AND SOLD REPORTS

By L. S. Gross, Washington

The total cut of National Forest timber the first quarter F.Y. 1940--448 MM feet--is the second highest first-quarter cut in the last five years; in F.Y. 1938 the cut for the same period was 451 MM feet. Since the 360 MM feet cut in the fourth quarter of F.Y. 1939 is the highest cut reported for that quarter during the last five years, it seems as though National Forest timber business is on one of the periodical upswings.

The total cut in the second quarter F.Y. 1937--397 MM feet--was practically on a par with the total cut for the same quarter F.Y. 1939--399 MM feet.

Timber given in exchange for land was cut in the first quarter of F.Y. 1939 to the extent of 91 MM feet and the fourth-quarter cut in the same year also amounted to 91 MM feet.

The 97 MM feet cut during the first quarter F.Y. 1940 in land exchange cases is the highest cut of this character ever recorded in one quarter. It is interesting to note, however, that this represents 21.6 percent of the total cut of 448 MM feet during the quarter as compared with a land exchange cut of 58 MM feet in the first quarter of F.Y. 1936, which amounted to 20.7 percent of the 280 MM feet total for that quarter.

Perhaps the most interesting coincidence is--

Total volume cut F.Y. 1937--1,290,623 M feet
Total volume cut F.Y. 1939--1,290,561 M feet
Difference 62 M feet

THE EDITOR DISCOVERS

Prefabricated houses, built of longleaf southern pine lumber, grown and manufactured in Florida, will shelter Rear Admiral Richard E. Byrd and his party of explorers against the severe blasts and cold of the frozen polar regions of the Antarctic while they are engaged in their difficult expedition during the coming months, according to a recent press release of the Southern Pine Association.

"The prefabricated southern pine houses, which will be erected at two proposed bases in the Antarctic for Admiral Byrd and party," the release states, "were produced by the Putnam Lumber Company at Shamrock, and the last unit was shipped to Boston several weeks ago, after an inspection of the houses by the designer and members of the explorers' party. The buildings were designed by Major A. L. Violante, Quartermaster Corps, U. S. Army, who stated that longleaf southern pine was selected as the material for the houses because of its properties of great strength and durability."

"There are nine prefabricated houses in all. They are to be insulated with rock wool and all like parts of the buildings are interchangeable. The prefabricated panels and all the beams, trusses, joists, etc., are fastened together with Teco connectors. The outsides of the houses will be wrapped in heavy canvas. At each of the two bases in the Antarctic there will be a large bunk house, 60 by 24 feet, a science laboratory and a machine and carpenter shop, each 32 by 24 feet, and a small generator house. In addition there will be an outpost building 12 by 12 feet, placed on skids so that it can be moved about by a tractor.

"There are no windows in any of the houses, but some skylights for use during the so-called summer season. Along the sides of the interior of the bunk houses there are 2-deck bunks, designed somewhat after the pullman type, canvas curtains providing some privacy. The kitchen will be in one corner and the center of the house will be used by the men as a community room. Admiral Byrd will have a bunk in one corner of the house. An unusual feature in the construction of the bunk houses will be a raised deck above the floor to provide better circulation of air. The designer stated the houses are built strong enough to stand up under a weight of 300 pounds to the square foot, or more than 15 feet of snow."

The Wood Preserving Corporation of Nashua, New Hampshire, has also furnished, according to a letter received by the Washington Office, the following red pine poles to be used for the communication lines of the expedition: 12 poles 30 ft. long and 12 poles 40 ft. long, all measuring approximately 6 inches or larger at the tip. The poles were from hurricane-salvaged timber and were cut in the State of New Hampshire. These poles were trucked from the logging operation to the Corporation plant at Nashua, where they were peeled and put through the rossing machine before forwarding to the Army Base at South Boston for loading on board Admiral Byrd's supply ships.

- - - - - - -

A recent National Park press release states that several thousand native deciduous trees, principally cottonwoods and willows, and ten thousand 2-2 lodgepole transplant stock were planted during September and the early part of October on the Many Glacier Campground in Glacier National Park to replace trees destroyed in the recent conflagration which swept through this area. During the current year CCC enrollees have removed thousands of unsightly snags and cleaned up much of the landscape, obliterating many traces of the fire. Additional planting will be accomplished during the fall in the Sprague Creek and Avalanche Campgrounds.

- - - - - - -

Robert Fechner, Director of the Civilian Conservation Corps, has announced approval of an order authorizing the Quartermaster Corps of the War Department to purchase approximately $5,775,000 worth of clothing, shoes, and other equipment for the use of the CCC. The items to be acquired include 277,000 new spruce-green uniforms consisting of caps, coats, trousers (2 pairs per man), mackinaws and belts, 105,000 pairs of black shoes, 864,755 pairs of cotton shorts, 193,376 pairs of woolen drawers, 502,000 cotton shirts, 461,701 pairs of cotton khaki trousers, 908,632 pairs of denim working trousers, 1,185,000 summer and woolen undershirts, 1,214,718 shoe laces, 341,336 raincoats, 772,464 pairs of working gloves, 127,958 chopper mittens, 2,558,126 pairs of cotton and wool sox, 18,753 pairs of logger boots, 40,000 comforters, 170,000 toilet kits, 215,000 barrack bags and 644,500 towels.

The new spruce-green clothing included in the clothing purchase authorization will be utilized in the First, Second, Third, Fourth and Fifth Corps Areas. New uniforms were issued on October 1, last, to all enrollees in the First, Second and Third Corps Areas. The program for the equipment of all CCC enrollees with the new spruce-green uniform provides for the issuance of the new clothing to enrollees in the Fourth and Fifth Corps Areas on October 1, 1940. The four remaining Army Corps Areas will be issued the new green uniform when they exhaust present supplies of olive drab clothing.

MR. BEARD LEAVES SERVICE

Ward P. Beard, Education Specialist in the Washington Office, who has been handling the public school project for the past two and one-half years, transferred on November 1 to the Office of Education, Department of Public Welfare, where he will direct the work of that Bureau in vocational agricultural training.

Mr. Beard's transfer is a distinct loss to the Forest Service. During the time he has been with the Service, the public school project for integration of conservation in the public school courses of the country has developed rapidly. During that period several States, notably West Virginia, Tennessee, Oklahoma, Wisconsin, Michigan, and Ohio have undertaken curriculum revisions to provide for conservation integration. There has, also, been a marked change in the attitude of a number of teachers colleges toward special teacher training in conservation, and a greater interest on the part of the publishers of school texts in a more complete coverage of the subject.

Upon leaving the Service, Mr. Beard directed the following message to his associates:

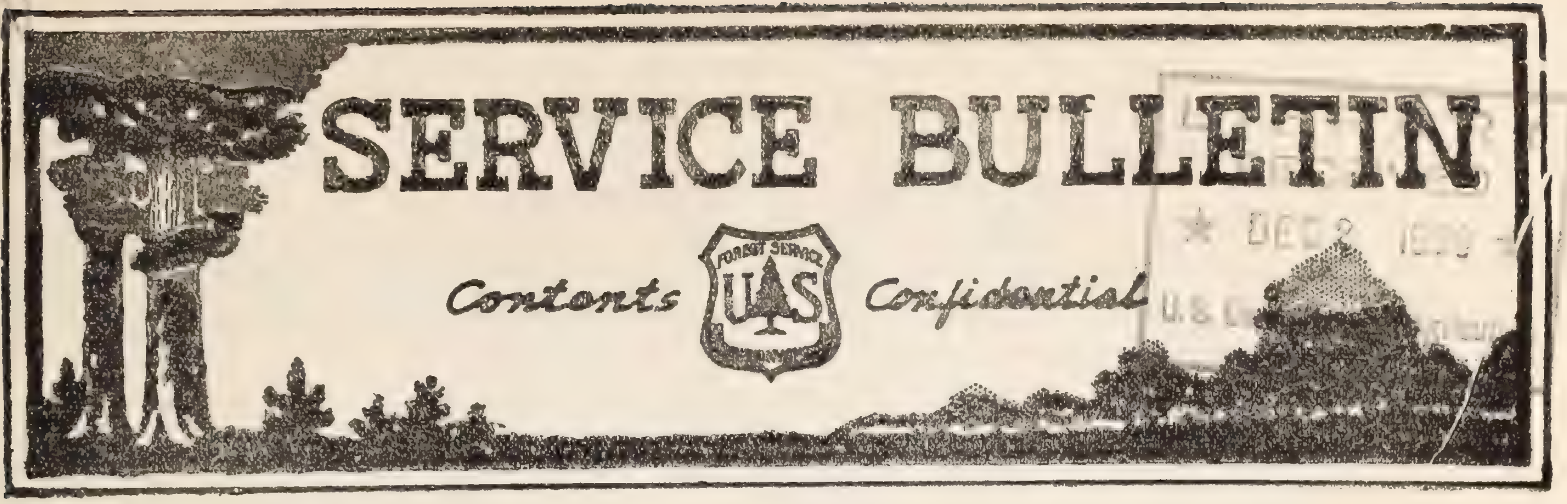
"It is not without regret on my part that I am leaving the Forest Service. Although returning to work in which I was formerly engaged for over 20 years, my 3 years' work in the Forest Service has established many valued personal and professional bonds for me. The similarities between forestry and the fields of agriculture, with which I have been familiar, have made me feel very much at home.

"I prize highly my experience in helping to establish the cooperative program in conservation education with the public schools. It has been a real satisfaction to me to represent the Forest Service among educators, for at all times I have found its work highly respected. The fine assistance given by everyone in the Forest Service, who has had anything to do with this program, is greatly appreciated."

GEORGE A. DUTHIE

RODENTS ON THE RANGE

Twelve ground squirrels per acre consumed 546 pounds of forage during one year, according to recent cooperative rodent enclosure studies conducted at the San Joaquin Experimental Range by the Bureau of Biological Survey and the Forest Service. During the same period 16 pocket gophers consumed 478 pounds of forage, and 32 kangaroo rats per acre consumed 987 pounds. The total rodent population, numbers and species unknown, consumed 870 pounds per acre. The normal grazing rate on the plots, for livestock and rodents combined, amounted to 1505 pounds per acre. Total forage production was 2401 pounds. (Annual Report of the California Forest and Range Experiment Station, 1938-1939)



SERVICE BULLETIN

Contents Confidential

VOL. XXIII, NO. 24 WASHINGTON, D. C. NOVEMBER 27, 1939

DEC 2 1939

ROBERT MARSHALL, FORESTER - CRUSADER

No man ever rode the crest of the wave of life with higher purpose or more joyousness than Bob Marshall. In electing his way of life, Bob chose mainly those activities which would help to make life better for those who need a hand or would preserve the quality of naturalness of some of our wild land. His ability to walk sixty miles a day in any man's country, and to finish with a spring in his step, typified the zest with which he tackled everything. He was as interested in a whimsical "study" of the dinner-table conversation of lumberjacks as in the I. Q. tests he made on Eskimos and his studies of Arctic vegetation. He was as passionately devoted to the development of organization camps for outings for the underprivileged children as to the preservation of wildernesses where those of special vigor and love of solitude might find adventure. And never a thought of personal prestige in any of his projects or his gifts to good causes.

Death came with shocking suddenness. Bob left Washington Friday night, November 10, on the Pullman for New York for a week-end family gathering. He was apparently in good health, and was looking forward eagerly to the family reunion. His death was discovered on the arrival of the train in New York, and was evidently due to coronary thrombosis.

Men like Marshall can ill be spared. He was a force for many good movements. He had the mental and physical vigor to drive ahead and to inspire and arouse enthusiasm in others. His joyousness and his lively sense of humor were contagious. His capacity for friendship had no bounds. He was "Bob" to hosts - from Justices of the Supreme Court to his beloved friends of the Arctic. Surely no man ever had more friends to mourn him.

But Bob would not want to be mourned. His going was shockingly premature, but he was not afraid to go. He came close to death in Alaska last summer. If there is a Valhalla for the spirits of men, may Bob's spirit find there one of his beloved wilderness areas - something to bring forth that expression we often heard him use, "Gee, this is swell!".

F. A. SILCOX.

WHITE SILK OVER THE FOREST

By David P. Godwin, Washington

Study of the time records of forest fires always brings re-emphasis of the inescapable truth that travel-time is a paramount factor in determining the size of burned area. "If only one man had been there early."

Since the beginnings of systematic fire control, men have therefore bent their thought and energies toward the extension of forest ways and to faster means of traveling over them. In the National Forests we now maintain a vast network of transportation routes. Twenty-three thousand miles of roads, one hundred and thirty-seven thousand miles of trails. Along these forest ways, by foot, by horse and by motor, go the men dispatched to suppress fires. There are 20,000 motor vehicles in use by the Forest Service and many more are rented in times of need.

Gradually the extension of roads and the addition of vehicles are slowing down as the point of diminishing returns approaches. What then? Will current travel-time achievements become static? There will, of course, be some continuing extension of ground routes and improvement in ground vehicles, but the results of this in further reduction of travel-time will be comparatively unimportant.

On the other hand, air transportation, if we can intelligently adapt it to our ends, may open up an era of time-cutting which our present fire plans have hardly glimpsed. For some years aircraft has been used in the delivery of fire fighters and fire control overhead from distant centers to nearer centers, and this has been a great advantage in assembling men for large going fires. We have developed seventy-six landing fields, but this is pitifully scant distribution over the area of all of the National Forests. Some more can be constructed but topography will soon limit such extension. Here again, the curve of progress will begin to flatten out. The curve would rise again sharply if aeronautical science developes the hovering type of aircraft with characteristics of vertical descent and ascent and capacity for real payload. When that day comes we may be able to land aircraft in thousands of small clearings on benches, bottoms, and ridge tops. But that day is not here.

So for the present, at least, comes the question "What can be done to land men without landing the planes?" The question is not new. For years fire control men have mused and argued about the possibilities of parachute jumping of smoke-chasers near small fires in back country and thus catch 'em early. Region 4 carried it as far as some preliminary experimental work. Is such a travel-time reducing method mechanically practicable, and is the risk to life and limb a responsibility sane Forest Officers would care to assume?

Professional parachute stunt jumping has been confined to airports. The Russian and German armies in maneuvers and in actual warfare have made mass jumps of armed men, but always over open flat or rolling country. So far as known, however, there have been no premeditated jumps over rough and timbered terrain such as that found in the high back country of our western forests. It looked too fearful from the air. But as often happens, things are not so bad as they look.

This summer it was decided to thoroughly explore the whole subject and on October 1 the aerial fire control project group in Region 6, with the Forest Service airplane, was assembled at Winthrop, Washington, a District Ranger headquarters on the Chelan National Forest. From this point north to the Canadian border stretches a great area of remote territory where present travel-time maps show zones running up into many hours. Its variety of terrain offered ideal proving grounds.

At first dummies weighing 180 pounds attached to condemned Army parachutes were dropped at various elevations over various types of cover and topography. Close observation was maintained from the air and on the ground. Then began the jumping of men. The first were professional parachute jumpers but soon they were followed by two local men of smoke-chaser experience who had never seen a parachute before. All jumps were successful. In the six weeks during which the experimental work has been in progress over forty live jumps have been made, and in no instance has a man been injured in landing. They have dropped into mountain meadows and onto slopes and ridges, landed in Douglas fir trees as high as 135 feet and even in snags, and these landings have varied in altitude from 1700 feet to 7000 feet.

Existing equipment was not suited to such work and much preparatory work was necessary. Protective clothing of padded, tough material, and special helmets and masks were designed and made. Parachute harness was revised and made more quickly detachable. The parachutes selected were of the most advanced type, 30 feet in diameter and constructed with a wide scalloped periphery devised to provide slow rate of descent and minimum oscillation, and two long flaps to provide a degree of steering. A special rope arrangement was provided for lowering from tree to ground. Smoke-chaser's pack, with usual tools and supplies, was made ready for dropping by burlap cargo chute to the jumper after landing.

As the work progressed there was constant alteration and improvement in equipment and also in flying, jumping and landing technique. By the time the fall storms close the field work the equipment and the techniques will have been worked out to a point of finality. Resulting detailed instructions and specifications will permit of duplication on any scale elsewhere.

Every jump was different but gradually the methods smoothed out into standard practice: The plane, with door removed, leaves the landing field carrying one or two jumpers wearing jumping suits and harnessed with parachutes, sitting behind the pilot; after making altitude and sighting the smoke the course is set and approach is made into the wind at 2000 feet above the target; at what appears to be the right position and moment a weighted burlap test chute is dropped, and as the plane is banked, its descent and landing is observed by the pilot who circles and makes the next approach having noted wind drift and made correction; the jumper has moved into a sitting position in the doorway and upon signal from the pilot bails out, and after waiting the proper interval to clear the ship pulls the ring which releases the 'chute; his descent will take 2 or 3 minutes which gives hin time to maneuver his lines; he lands in a tree, the canopy holding above him and bringing him to a slow stop; he passes his rope through a D ring in the riser straps attached to the shroud lines and lowers himself to the ground where he divests himself of harness and suit. If another jumper is to be dropped on the same fire the third approach will be his turn. On the final approach the pilot drops the smoke-chaser's pack.

Many new concepts and unexpected results cropped up during the period of experimentation. Air density apparently is unimportant and landings are as safe at 7000 feet as at sea level; close stands of timber afford softer landing than the open ground; a high degree of accuracy is possible even with wind conditions; the parachute canopy is rarely damaged, even punctured; the shroud lines and hems hold securely to the crowns or side branches; most men suffer no nervous ordeal which, expressed in fatigue, would impair their subsequent work output on the fire line. The parachutes when bought in limited numbers will cost probably $175.00 each, and as noted above may often be used many times without tearing the silk.

On the whole, the group has confined its thinking and its active work to development of the mechanics of this technique, since there was no point in planning its application to our actual fire control systems unless the scheme itself could be proved technically workable. Throughout the winter, however, thoroughgoing studies will be made of certain Forest areas and their present fire control plans so that the possible adoption of the method may be viewed in all of its organizational and economic aspects. Many things would have to be done before it could be set up on an area as an integral part of the protection system. Advance arrangements would have to be made for selection and training of local personnel, for instruction of pilots of chartered planes, for procurement of special equipment; for a chute packing and rigging set-up, for revision of local organization plans.

If, after hard-headed and skeptical analysis and full consideration of all the possible problems of application, the scheme still looks good, it will be put into operation in the spring on a limited scale in a western area - perhaps a Forest or a group of Forests or even a whole Region.

Its practicability is far from established, but hopes are high that this new device may develop into a usable means of reducing that all too bulky period of travel-time.

FORTY-ONE MILES IN THE OZARKS

By Robert Marshall, Washington

(The following article was prepared by Mr. Marshall for use in the Service Bulletin a few days before his death.-Ed.)

Every Washington bureaucrat has his own peculiar notions about inspection. As one of them, my special predilection is walking since I feel that it constitutes an unusually effective way of getting impressions of a country. People talk much more freely with me when I walk up to their houses, dressed in blue jeans and an old cotton shirt, than they ever do when I hop out of an official car, in a high-toned uniform. In addition I can get much more accurate and lasting impressions of the forest or range through ten miles of walking than a hundred miles of riding in a car.

On the basis of this philosophy, I really had a swell 41-mile walk last Sunday on the Gardner division of the Mark Twain Forest which lies in the Missouri Ozarks. I saw a forest in which the only remaining trees 20 inches in diameter or larger were so rotten that no one could conceivably want to cut them. Of the smaller trees, there was some shortleaf pine, but mostly it was oaks. After five days of taxonomic training under Jim Diehl and Harry Harrison

I still can't do much more than tell a red oak from a white, but my interest in tyloses was aroused for the first time since leaving forestry school. Among the sad forest remains from a hundred years of unregulated cutting, it was exciting to realize that there were the makings of a splendid new stand of high quality oaks and hardwoods under the Forest Service's present program of fire prevention, trespass cutting prevention, grazing regulation, and selective logging.

Apparently, there is plenty of opposition to this program and the local officers have to show the same type of strength and courage and tact that the forest officers in the West needed to show when forestry there was largely an unsold program. But also it was encouraging to note some enthusiastic support of the Service.

I stopped to chat with a couple of unrelated Collins's whom I met walking along a dirt road. (There are almost as many Collins's as oaks in this country, and seven of the nine men I stopped to talk with in the first 25 miles bore this name.) Frank Collins said, "The main cause of all these hard times is the Forest Service. We used to be able any time we wanted to cut down a tree and haul it to the tie plant and get a dollar. Now the Forest Service won't let you cut anything." I asked him in a relatively neutral manner whether he didn't think the young trees which the Forest Service was now protecting wouldn't in the end produce more income for the people of the Ozarks than by the old method of going out and cutting every tree almost the first day it got big enough to make a tie. Frank said, "You may be right some day, but I'm 52 years old and I'm interested in what happens before I die."

Ben Collins, his companion, said, "I'm 58 and I do expect to see the day when this protection the Forest Service is giving the trees will help me. Why, I've seen two crops of yellow pine cut on the same piece of land since I was a boy. You know yourself, Frank, that it isn't the Forest Service that keeps you from going out to cut a tree whenever you want, but it's because all the trees that were good for anything have been cut out long ago."

I had quite a long chat with Dan Collins who was driving home with his three young, blond-haired sons. He was commenting on how hard it was to get cash any more and how much easier it had been for his father fifty years before, when the big lumber companies were operating in the hills. "Them three is all my sons," he said, "and it is mighty hard to feed them without no cash."

"It certainly must be," I answered. "But you surely have a fine family if those three are all your sons."

"Oh, that's not all," he said. "I have two more to home, and me and my wife."

"Well, that is a fine family," I said.

"But that ain't all neither," he replied. "They's two more has growed up and married and gone away from home."

"Seven children!" I exclaimed. "Well, you really have a good sized family."

"But you might say in a way that ain't all neither. My first wife, I had six by her before she died."

"Are they all living?" I asked.

"Everyone of them," he said.

"Thirteen " I exclaimed, "and it surely must be mighty healthy stock if none of them have died."

"Well, they was two more did die. My first child by my first wife got sick and died all in one night, and my second child by my second wife, he died also."

"Fifteen! Well, that really is a record breaking family, pretty nearly."

"Well," he said, "you might say in a way that ain't all neither. My second wife, she was a widow woman and before I married her she was married to a man whose name was Collins too, and they had six children."

"Twenty-one children! Is that all?" I asked.

"Yes, that's all."

THE SCHOOL FOR SECRETARIES

By Miriam W. Drimmer, Washington

From further discussion on the subject of In-Service Training and also from the two articles appearing in the Service Bulletin of October 16, I feel that the issues involved are not clear. This is written, therefore, in an attempt to enlarge and clarify my intent.

That In-Service Training has proved successful in the Government, both from the standpoint of the Department concerned and the individuals, is a well-known fact. It provides an opportunity for progress and development, that is not easily obtained in any other way. It trains people to fill vacancies of a higher calibre and to make the most of their potential ability. The Department of Agriculture is known to have one of the best systems of In-Service Training available for technical men; - why stop there?

There are three steps necessary in a good system of In-Service Training; the first being orientation. New employees need explanations of the ideals, standards, functions and methods of the Forest Service, as well as a general knowledge of the divisions, their particular work and their place in the entire set-up.

The next step is training in the positions to be occupied by the employees; - this could be entrusted to the immediate supervisors and superiors, if they were trained first and chosen carefully, with their ability to train others kept in mind.

Lastly, there is the question of training employees for possible higher vacancies. If a system were arranged whereby the perhaps latent abilities of individuals could be developed and increased, benefits would most likely be derived by both the organization and the individuals.

An article published in the Service Bulletin of June 13, 1938, entitled "Comments on the Regional Officers Conference Report" by Mr. Bernard Frank, explains in some detail the TVA system of In-Service Training for non-technical employees. Their methods include short talks by an executive in each Division to each group of new employees as they enter the organization and slides and motion pictures fill in the gaps. Then - a few hours each month are devoted to continued training through the years.

I hope all of this hasn't completely missed the eyes of the men who can start the ball rolling toward the desired end. Their opinions would be greatly appreciated by all the interested bystanders, I am sure.

FOREST INDUSTRIES CONFERENCE

The "Southern Lumberman" for November 1 comments editorially on the recently organized Forest Industries Conference, which is described in that issue in an article by Secretary Wallace. The article, says the editorial, "should be read with interest by all lumbermen. It is particularly encouraging to observe the vision and broad-minded point of view of the Secretary in recognizing the practical aspects of the matter. The large problem involved in forestry, he says, involves private forest land and the difficulties inherent in its ownership and operation. 'Unless they are profitable,' Secretary Wallace sensibly points out, 'good forest practices are interesting to discuss, but hard to secure. To make them profitable requires first of all an understanding of the factors affecting them, such as markets, credits, taxes, utilization, and the like. Determination of these factors is not a one-man or a one-agency job. It is rather a challenge to the collective brains of all organizations and agencies concerned with forest lands and industries. I believe the Forest Industries Conference represents a most promising approach to the clarification of forest industry problems and that it can aid materially in their solution.' Secretary Wallace is the head of the governmental department embracing the Forest Service and controlling the National Forests. It is gratifying to observe his helpful and co-operative attitude. Approaching its objectives with that attitude on the part of all those composing it, the Forest Industries Conference cannot fail to be of value." - USDA "Daily Digest"

THE EDITOR DISCOVERS

Mrs. Franklin D. Roosevelt, who had a speaking engagement at Hutchinson, Kansas, on November 2, spent three hours on the afternoon of that day with Prairie States Forestry Project people looking over some windbreak plantings. In a letter to the Washington Office, E. L. Perry of the Project, says:

"Mrs. Roosevelt really looked the shelterbelts over, tramping through the sand, examining trees and asking questions of farmers and foresters alike, paying slight attention to the fact that her shoes were full of dirt and that the hem of her dress was torn, that she snagged her coat on the thorns of the honey locust trees. She spent three busy hours 'in the field.' Her first interview with farmers was begun on the north side of the shelterbelt, where the party was chilled by a raw wind, but upon invitation of one farmer she went to the other side of the shelterbelt. She was skeptical that the shelter of the trees would help much, but when she found how much more comfortable it was on the lee side of the trees she was profuse in her acknowledgment of the fact. The farmers had quite a time convincing Mrs. Roosevelt that the trees she saw were only four years old, and she was also impressed by the survival. She said that the President had a 25 percent survival in his plantings at Hyde Park, and expressed wonder that the Project should have made such a record as it had."

- - - - - - -

On November 8 Professor J. S. Illick of the New York State College of Forestry visited the Washington Office with his graduate class in forest management. The class made a tour of Forest Service offices in the South Building and interviewed Mr. Silcox and a number of the Assistant and Division Chiefs in order to get first-hand information about organization of the Forest Service and the way it functions administratively.

- - - - - - -

According to an item in the "Maryland Conservationist," fall issue, the State of Maryland has formally acquired the 400-year-old Wye oak tree in Talbot County. The State Board of Public Works by purchase acquired title to the tree, the land on which it stands, a house and part of an adjoining tract covered by the tree spread. This will be made into a public park under the supervision of the State Board of Forestry and the State Roads Commission. The Wye oak, which stands along the State highway between Centreville and Easton, has been described as the finest example of white oak on the American continent. It is 95 feet high and has a spread of 165 feet. The bole measures 27 feet 8 inches in circumference 4 feet 6 inches from the ground. Lightning rods will be installed on the tree to protect it and it will be fed, something that has not been done before.

- - - - - - -

The Bureau of Fisheries reports an increase during 1938 of more than 500,000 in the number of anglers paying State license fees. A total of 7,436,177 licenses were issued during the year, of which 5,453,426 were for fishing alone, while 1,982,751 licenses included fishing, hunting and trapping privileges. Fees collected by the issuance of the fishing licenses totaled $10,220,788. Looking back over the records of national sports fishing for the past five years, Bureau experts found an increase of more than 2,500,000 in the number of anglers during the period from 1933 to 1938.

- - - - - - -

Southern California isn't the only place where floods follow closely on the heels of destructive forest fires.

Following is a quotation from Supervisor Snow's report on a small flood in the Black Hills which occurred following a fire:

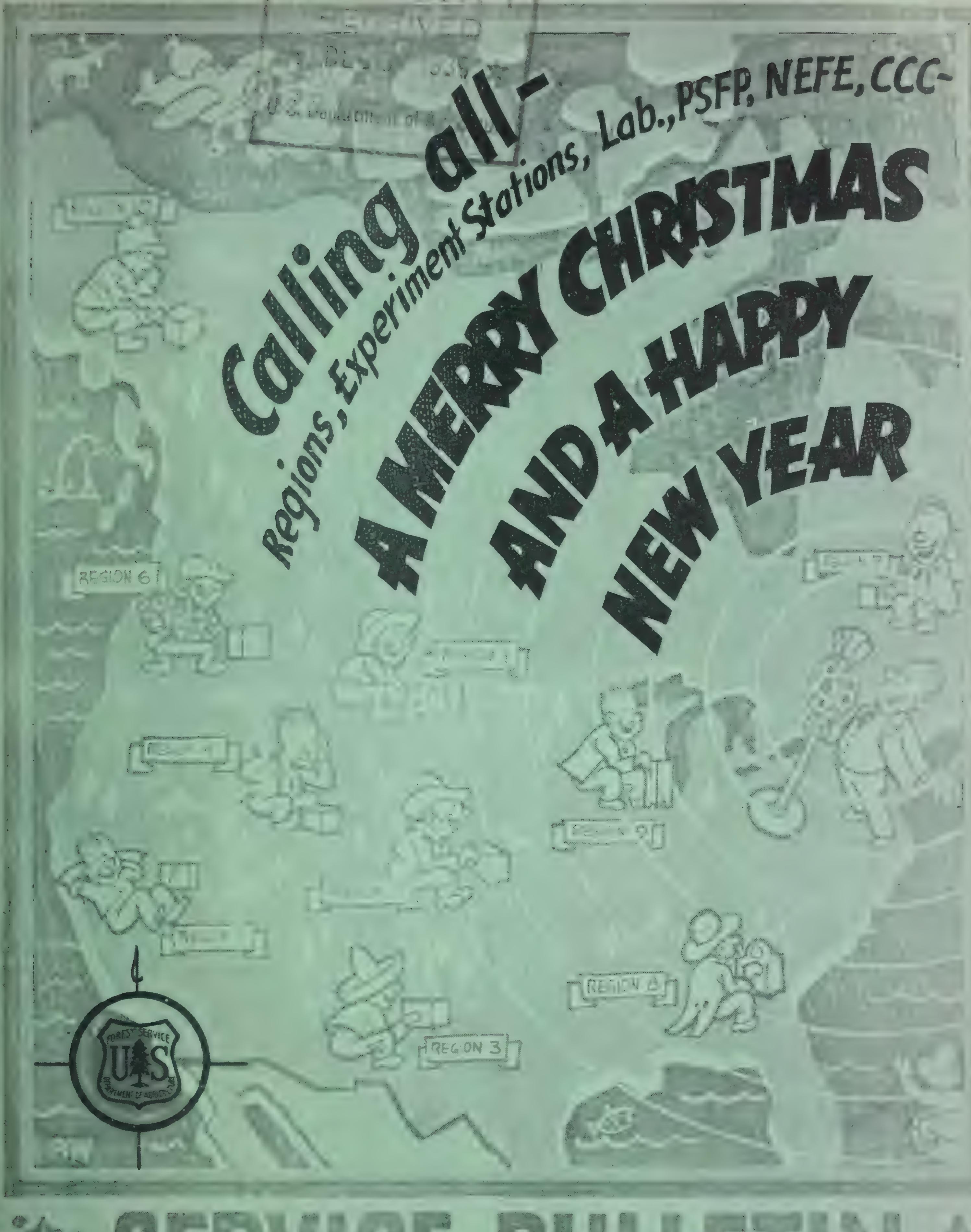
"A cloudburst in Horse Creek, Whaley, Gordon, and Marshall Gulches, about 4:30 p.m. on Saturday, August 26, on the Harney and Black Hills Forests, sent 1500 second feet of water down Spring Creek. The flood, with a vast amount of debris, hit the Sheridan Dam, now under construction, at about 6 p.m. Tractor and compressor equipment were stored on a bench about 15 feet above the normal flow of Spring Creek. Four trailbuilders were hurriedly moved to higher ground but 7 tractors and 3 compressors were covered with water so that a complete cleanup was necessary. The diversion tunnel which carries off the water of Spring Creek during the construction of the dam could not care for the flood water, which backed up, covering the entire face of the dam and almost overflowed the completed fill. Hogs, chickens, calves were drowned. Deforestation resulting from the McVey fire of last July was largely responsible for the flood."

Engineering tells us that it cost $1500 to dismantle, clean and reassemble the machinery caught in Sheridan Dam.

LONG DISTANCE RADIO REPORTING

Radio sometimes goes a long way around, but it brings results in fighting fires. The Payette Forest reports that one day last August, Robert Frazier, lookout in Friday's Butte, saw a fire on Cottonwood Creek. Evidently the Cascade Office was off the air, and the only answer Bob could get to his radio calls was Gold Beach, Oregon. Bob told his troubles to the radio operator at Gold Beach and took off for the fire. Sometime later in the morning Gold Beach reported the fire to Lynn Knight at Cascade. - Intermountain "Daily News"

LIBRARY
RECEIVED
DEC ... 1939
U.S. Department of Agriculture


Calling all-
Regions, Experiment Stations, Lab., PSFP, NEFE, CCC-
A MERRY CHRISTMAS
AND A HAPPY
NEW YEAR
REGION 6
REGION 7
REGION 9
REGION 8
REGION 3

SERVICE BULLETIN

VOL. XXIII. NO. 25 WASHINGTON, D.C. DECEMBER 11, 1939

GUARDING DEMOCRACY

We are on the eve of another Christmas. Another New Year will soon be here. And although these are days when armies march as dictators command, America stands firm for democracy.

It is the job of every one of us to help maintain that stand.

As a Nation we draw civic and spiritual guidance from the Declaration of Independence and the Constitution. For most material things on which our strength is based we turn to the earth, its minerals, its soils and waters, and to the plant and animal life they yield.

As members of the Forest Service we therefore rededicate our efforts to securing wise use of our natural resources. For, as sources of raw materials, of necessities of life, and of employment and income, these resources are fundamental to national defense against military aggression and against the undermining of economic and social structures within our borders.

But abuse and depletion of natural resources are not the only threats to democracy as we know it. Freedom must also be guarded; freedom to seek the truth, and courage to apply it without prejudice or rancor through established institutions in defense of human rights.

You and I are members of an organization permeated by the spirit of public service. Foresters, we are also citizens of a democracy. I am confident, therefore, that our efforts and our lives are also rededicated to preservation of tolerance, kindness, and those ideals that guided our forebears when, seeking blessed sanctuary, they founded the United States of America.

F. A. SILCOX

"OUR REGULAR WORK"

By L. F. Kneipp

The field officer accompanying the visiting brass collar felt that explanations were in order. Certain sub-standard conditions were obvious. Long continued drouth partially explained poor range condition, but not the evident contrast between the open range and the small areas which happen to have been protected. "It would be fine," he remarked, "if we could just get back to our regular work." The visitor sympathetically agreed, but as he did so his mind evolved the question: "Just what is our regular work?"

Time was when the Forest Officer's fields and functions were relatively simple. In some measure dogma had made them so. The protection, restoration, and extension of the forest dominated all other purposes and requirements. Where trees had ever been, trees should grow again. Where fire had raged, it must be curbed. Where haphazard and destructive logging had occurred, orderly use based on sound principles of silviculture must be substituted. Where demand for the right to use the forage resources commanded reluctant recognition, it was to be reduced to complete compatibility with tree growth and watershed protection. Private use and occupancy of small areas of National-Forest land was allowable only where it did not conflict with the utilization of timber and range. Areas were dedicated to agricultural use and private entry only when the physical facts, in the light of contemporaneous knowledge, seemed to indicate that the land would produce more wealth in farm than in forest. Physical improvements were in order only when they directly contributed to better protection and administration.

To foresters, the world was then a pleasant place, exacting in its physical demands but rich in its spiritual compensations. Today, many a harassed field officer feels that its peace has fled; that the forest administrator faces a complex of activities and requirements markedly beyond his functions and limitations. His nostalgic wish for the return of the happy days of long ago is wholly understandable. But is it wholly logical and realistic?

One-tenth of the entire land area of the 48 States is within National-Forest boundaries; one-twelfth of it is National-Forest land. Today and tomorrow, as it was almost 35 years ago, when Secretary James Wilson enunciated the basic policy, the mission of the Forest Service is to manage that land "for the greatest good of the largest number in the long run". But social forces have raised new questions as to what is the "greatest good"; what is the "largest number"; what is the "long run"? Indubitably, these terms now and hereafter will have connotations differing from those of 1905.

The Nation may not face a different future from that which lay ahead of it in 1905, but it now understands its future better than it did then. The tide of settlement has lapped the Pacific and turned back. The tide of industry has not reached its ebb, but technology now gives it power to produce without the employment of all who desire to labor. Out of what land there is left, out of what natural resources remain available, the people of the United States must work out an adequate economic destiny or surrender their ideals of economic and political liberty.

Nobody can expect nor should desire that the National Forests should be withheld from their full part of this movement; nor is there the slightest probability that the American people will long consent to their management under any condition that does not satisfactorily realize their full social value. To them, as to every other part of the United States, must be applied every social principle or practice, every type of development and use, consistent with their perpetuation. Forestry per se may be a process of applied relatively simple principles and formulae, but National-Forest administration now is and hereafter must continue to be a complex intermixture of sociology and economy and engineering and statecraft as well as the application of the natural sciences and techniques to the production of organic wealth and the stabilization of soils and waters.

RECENT TRAILS BLAZED IN FOREST RESEARCH

By C. L. Forsling

The occurrence in quick succession of Thanksgiving Day, Christmas, and New Year's - despite all efforts to space out these social and spiritual holidays - makes this season of the year inevitably a time for stock taking, for some thoughtful consideration of the progress made and the tasks in prospect for the new year. In the long-time job of forest research, however, such attempts to analyze any one cross section of the work run in to many difficulties, if they do not invite the stigma of futility. Forest research field and laboratory work is going on continuously in one part of the country or another, and neither the plans by which this work is guided nor the results obtained from it are the developments of any one month or year. The following is by no means an attempt to summarize the commendable work being done in all fields nor to estimate progress. It is no more than a glimpse down a few of these trails which for one reason or another are at this time of especial interest.

One of the newest trails blazed by forest research is the cost study covering small mills producing southern pine lumber. The Division of Economics, the Southern Forest Experiment Station, and the Forest Products Laboratory all took part in this study, with the active cooperation of Region 8 in the field work. About half the total output of southern pine lumber is sawed in these small mills, mostly portables, and between 100,000 and 150,000 men are given full-time or part-time employment by them. Such a cost investigation as this is rendered especially urgent by the operation of the Wage-Hour Law, effective in October 1938, which created immediate and serious problems for many of these mills. These problems have been aggravated by the further increase in wages and reduction in hours effective this year. This study actually covered more than 100 small-mill operations in nine States, together with several planing mills and concentration yards, and went into production costs, operators' profits, and employment, as these may be affected by the Wage-Hour Law. The results indicate possible savings to the operators through improved cutting practices which will also effect savings in conservation of the small thrifty timber. And further savings can be made by better equipment and more efficient operating methods. It is painfully evident, however, that even if all of these savings were realized, they would still be insufficient to keep many of these small mills in operation under the wage standards prescribed by the law unless there is a considerable increase in the selling price of lumber.

The Nation-wide forest survey follows one trail of which the course is clear. There is no uncertainty as to the nature of the information that it will procure nor as to the value of this information, for which the demand is constantly increasing and in every direction outrunning the available supply. On this trail funds and men alone limit the service which can be rendered to the public. The initial work is about half done, covering eight southern States, the three Lake States, and the Pacific Northwest. Although emergency help has sent this work far ahead of the schedule that would have been possible with the regular appropriations, the whole job lags far behind the original program. In the South we are finding that, on land only one-third stocked with timber, the average size of the trees is becoming smaller with the increasing proportion of second growth, and in only two States is there a surplus of growth over drain on the forest. Similarly, in the Lake States, where only one-third of the volume is in the more valuable species, cut exceeds drain by some 30 percent. In this field of the survey, light is being thrown on the two urgent problems, first, of what is involved in tiding over the lumber industry until second growth is ready for cutting; second, of how large is the volume of low-quality material and how urgent is the need to find ways of utilizing it. In the Northwest, where there is still enough timber to permit the institution of a sustained-yield plan, the survey is supplying much needed information pointing to the arrangement of a regional cut that will make this plan possible. Meanwhile, keeping the inventory up-to-date in the areas already covered is essential as a means of balancing our "timber account" as needed. In California, in the South, in the Northern Rocky Mountains, and the Appalachians field work is progressing slowly, while demands press for the information which can be supplied only fragmentarily pending completion of the survey in all regions.

On the trails leading out into the domain of forest range research are many evidences of renewed activity and more effective effort as a result of the Range Research Seminar held this summer at the Great Basin Station in central Utah. Here research and administrative men got together for a two weeks' discussion of methods and objectives. This opportunity for young and old in point of service to gain a sympathetic understanding of the other fellow's viewpoint - the like of which was afforded earlier in the year to Forest Influences men meeting in southern California - was of inestimable value to the men sharing in it, both in the immediate future and in later years. From this pooling of experience, we look forward to greater achievements from the men engaged in grazing management, artificial revegetation, range forage, and watershed protection investigations - all coordinated avenues of approach in determining how best to manage the forest and range for the greatest good in the long run.

Into nearly every phase of forest research work comes the question of utilization and here the blazed trail diverges most often in the direction of the laboratory. Because the forests of the present and future are growing timber in smaller sizes, new methods must be worked out for the utilization of this smaller sized material. The Forest Products Laboratory at Madison is working continually on this group of problems as well as upon the utilization of inferior species. Many of the answers are being found in the finishing and weatherproofing of plywood and in the building up of small-sized lumber into laminated structures that are in some respects superior to similar structures made from whole timbers. A synthetic resin-forming material is being perfected to weatherproof and shrinkproof the outer layers of plywood, and otherwise to improve the physical properties of wood, plywood, and laminated wood. Cheap water-soluble dyes are combined with the resin treatment to give improved tone or color which will be permanent and at the same time more uniform than oil stains applied to the untreated wood.

One of the most fascinating vistas now opening up in the work of the Forest Products Laboratory is in the line of utilization of lignin, the second largest chemical constituent of wood and one which in the past has been regarded as utterly useless. A new process, involving the addition of hydrogen to the lignin molecule, produces a transparent liquid from which is obtained not only the industrially well known methanol, but also four compounds never before obtained from wood, all colorless, two in the form of high-boiling liquids, the third a crystalline, and the last a glassy solid. All four products give promise of usefulness as solvents, fungicides, adhesives, or plasticisers. The exciting possibilities in the development of these products are considerably heightened by the reflection that 1½ million tons of lignin are discarded annually by factories making pulp for rayon and for the better grades of white paper.

Among the newer developments in forest research is the tendency toward convergence of several quite distinct lines of research work on the experimental forests that have lately been established in increasing numbers in different forest regions. The most common confluence of this sort involves forest management research, and forest economics and products research. The experimental forest in shortleaf at Crossett, Arkansas, is a good example of what chemists and engineers call "pilot" plant tests of actual stand improvement and harvest cutting operations. Similar work is developing on the Dukes area in the Lake States, where frequent, actual commercial cuttings will be used to check and compare the soundness of various silvicultural methods in sustained-yield operations in the northern hardwoods. In slash and longleaf pine on the Olustee Forest in the Southeast and in the east side ponderosa pine of California in the Blacks Mountain area are similar activities. Here is the opportunity to concentrate studies on a given tract where the tests involve not only silvicultural but frequently economic and utilization aspects. Work may be concentrated for demonstration purposes, and the opportunity is afforded to apply theoretical knowledge experimentally to actual problems.

In a way this new trend reemphasizes the complex and difficult character of forest research in silviculture, particularly in the methods of harvesting mature timber where great variation in site factors, stand composition, growth rates, and other local conditions make it extremely difficult to generalize from the results of small inexpensive installations. This broader type of forest research should permit more precise and controlled experiments depending less on individual interpretation. It should make possible a more thoroughgoing research dealing with economic as well as with technical aspects of the whole problem; producing results more thoroughly tested under actual conditions of application and hence in many instances more readily and successfully assimilated and applied by the forest manager.

Forest research follows a multitude of trails, all leading out into the unknown, some followed rapidly and some with tedious but unavoidable slowness; on very few is there foreseeable any arrival date. And on all of them are "good men and true," gaining little personal glory or emolument, surmounting a thousand tangible and intangible obstacles, striving constantly, sometimes achieving, rewarded now and again by the soul-satisfying realization of a job well worth doing performed to the utmost of the individual's ability.

AT LEAST HALF THE TEAM

By C. M. Granger

A long, long time ago, when the writer was in Region 2, he wrote an appreciation of the women of the Service. Some captious critics charged him with a desire to wheedle the Rangers' wives into providing fried chicken on the occasion of his stops at ranger stations. Thus are lofty thoughts sniped at by those of evil mind!

At this juncture, the writer is (unfortunately) stationed so far away from the ranger districts, and visiting foresters now so seldom stop on one spot long enough for a chicken to be caught, that one would seem to be safe from such aspersions if the subject is reopened.

There is all too much of the masculine pronoun in Forest Service contemporary literature. All too seldom do we self-conscious males have the grace to strike a note of recognition and appreciation as gracious as the recent Bulletin mention of the achievements of the Library ladies. One not in the family would get the impression that the Forest Service is not coeducational.

But I am morally certain the men in the Service have no such illusions, nor any such feelings. It is just that men are naturally somewhat shy and clumsy about expressing themselves in such matters. And then, on a team, the members usually just take each other for granted.

Have you ever thought what would happen if the women of the Forest Service ever went on a sit-down strike? Both those on the pay roll and the wives of the Service men? If you want to get a quick appraisal of how important the women members of the team are, try to imagine such a situation. Or even a "slow-down", the new technique on the automobile assembly line. A moment's reflection on such a contingency will enable you to realize for yourself the countless ways, big and little, in which the gentler members of the team are contributing to the size of the score, and so I will not need to make up even a partial list, for space limitations are binding.

So it seems to me the men of the Service can very appropriately say a very special and a very hearty "Merry Christmas and Happy New Year" to their feminine contemporaries. Ladies, we salute you!

OUR MERRY CHRISTMAS QUIZ

When you are helping decorate the tree for the merriest holiday, and the stockings are all hung by the chimney with care, and the children all in bed, it often helps the merriment if you have a few facts on Christmas and such on hand for conversational purposes. For example, so you can turn to your companion and venture, "Don't you think it was nice of those Scandinavians, dear, to think up this mistletoe dodge? Or do you?"

Anyway, you'll find the facts answering these Christmas questions on Page 10 of this issue of the Bulletin.

1. With what were the first Christmas trees in our country trimmed?

2. What locality of the United States is said to use the most Christmas trees?

3. Where did the Christmas Tree custom originate, and who first brought the idea to America?

4. What species of tree is most popular for holiday use, and why?

5. How many Christmas trees are cut annually on National Forests?

6. Why do some trees lose their needles and begin to turn brown a day or two after you've hung the pretty gewgaws on them - and what can be done about it?

7. Where did holly get its name, and what is its religious significance?

8. In what States is most Christmas holly gathered?

9. Do all holly trees grow red berries?

10. How old must a holly tree be before you can tell whether it is masculine or feminine?

11. Who first ordained that whoever passes under the mistletoe shall receive a kiss?

12. What State has the mistletoe for her floral emblem?

13. Has a man any ground for belief the girls should kiss him if he stands under the mistletoe?

ALAN MACDONALD

FOREST SERVICE CHRISTMAS ACTIVITIES

By Quincy R. Craft, R.3

Following the exodus from Washington December 1, 1908, Christmas gatherings were inaugurated in most, if not all, of the Regions, and these were continued for many years. Of late, however, the Service has become so busy in providing part of the means of appropriate Christmas decorations for others that its activity takes more the form of an unselfish spirit to provide Christmas for its friends, and they are many.

In order that Christmas trees may be sold in large quantities the plan has developed of assembling hundreds, and in some cases thousands, of Christmas trees in a yard provided with rows of heavy wire strung between large posts (and resembling somewhat the old-fashioned hitching posts in country towns) against which the trees are leaned for selection by the public. On each is tied a red tag printed on both sides expressing the cooperative spirit of the Forest Service, and, worded friendly, information concerning the value of the forest and its need of protection. In the Southwestern Region, the first of these to be established was at the Tijeras Ranger Station in the Sandia Mountains, Cibola Forest, sixteen miles east of Albuquerque, where Ranger Ed Cottam is the assistant collection officer, and other collection officers have been appointed to handle Christmas sales at Taos, New Mexico, Carson Forest; and Williams, Arizona, (Kaibab); and at Flagstaff, Arizona, (Coconino), where two officers have been deputized.

At the Tijeras Station, as an example, Ranger Cottam has a small frame office, gas heated, at the corner of the Christmas tree lot, where, after selecting the trees that best meet their needs, the purchasers pass by the open window, pay Mr. Cottam 25¢ per tree for standard size, or more for larger ones or those cut by special order, while an assistant on one side writes the receipts for his signature for the standard 25¢ trees, and another assistant on the other side writes the receipts which call for various amounts in the case of more than one tree, or trees for which more than 25¢ each is charged. The trees sold are nearly equalled by those distributed free to churches, hospitals, schools, clubs, and other organizations. The second Sunday preceding Christmas is usually the day of largest business and on December 11 last year, Ranger Cottam disposed of 548 trees, the tally register showing that 1,230 persons visited the lot. The entire affair resembled a reception, so pleasant was every transaction and the intercourse of the buyers with each other. Two more assistants bring additional trees as required from the reserve stock, and help in other ways, while another assists in the selection of larger trees, directs the public to the supply of small boughs (which are free), and assists in directing traffic, although it is a matter of satisfaction that with the great concourse of automobiles, so orderly are the drivers, there was not even a minor accident last year. Children supply mistletoe to those who desire it, and this, procured from the forest where it is doing damage, certainly does not hurt the trees from which taken.

A few years ago alarm was general that the supply of Christmas trees would in a few years be exhausted, or the number that could be supplied annually reduced; and yet by improved methods of cutting this danger seems for the present to have been overcome. About one-fourth of the trees are Douglas fir, obtained through thinnings. The larger part are white fir, cut with a saw having a ten-foot extension arm from the tops of larger trees, and the following season a shoot, (or perhaps from one to a half-dozen shoots, one of which will in a few years persist and shade out the others), will grow rapidly so that in a little more than a decade another Christmas tree has taken the place of the cut taken previously, and the Christmas tree areas can be cut over at approximate intervals of a dozen years. Since white fir reproduces so well and competes with Douglas fir and other more valuable trees it seems good forest practice to use it for Christmas trees, for which it is so well suited.

The Forest Service takes reasonable pride in the part to which it has fallen heir in spreading the delightful Christmas spirit. True, it adds much to the work of the Ranger who from his district provides two or three thousand trees each year, yet it is far pleasanter than the nightmare of a six, eight, or ten weeks' fire season, and he can sleep soundly at night, unlike in the fire season. No officer has been heard to complain.

In the Southwest, and presumably elsewhere in the United States, special Christmas decorating is going forward as never before. Many towns in this Region decorate for three weeks preceding the arrival of the New Year, creating new designs annually, with community Christmas trees in the parks and at street intersections, and homes vying with each other in creating the most beautiful individual displays. The coal mining camp of Madrid, New Mexico, has attained national reputation with its community decorating, and visitors come many miles to spend an evening with its enterprising citizens during the holidays.

CCC FOREMEN - FORGOTTEN MEN

By Jno. D. Guthrie

At this time of peace on earth and good will toward men, I am constrained to bring up the case of the CCC Foreman as needing a little more good will on earth.

The Civilian Conservation Corps has now been a going concern for some six and one-half years, and the CCC Foreman has been a Federal employee that long. He's no short-term employee. He has made his home in the CCC camp for over 6 years. The Foreman is the pioneer, the oldest living employee in the camp, for Army officers have come and ruled and gone, educational advisers have come and advised and gone, and hundreds of enrollees have come and worked and gone.

He was given to understand when he hired out to Uncle Sam that he would be furnished free of cost with quarters, a bunk and bedding, and would pay for his meals at ration cost. He was told later he would have to teach, train, or instruct the enrollees. He was also told _much_ later that he would have $5.00 deducted from his monthly pay check, for quarters, if camp quarters were available, whether he used them or not. At first he had no lounge room or general room in which to sit and read or loaf in the evenings. Later he was provided with one--a bare room, and he dug down into his jeans to make it livable and somewhat attractive. He was told he couldn't be running home at night, he'd have to stay in camp. Promotions, even after 6 years, have been very few and farther between.

Just about every three months for the past 6 years he has taken a bunch of green kids, taught them which was the right end of an ax, shovel or crosscut, showed them how and where to work, given them advice and guidance during the daytime and taught them in the evenings. He was the man who spent more time with the enrollee than any other person in camp. He was given handbooks, manuals, specifications, and blueprints covering the many different projects to be done, and after training these green kids, turned out acceptable work, about up to the blueprints. If it wasn't, he caught something for it. If it was according to specifications, the enrollees got the credit, "for a fine piece of work for kids to have done."

All the publicity, all the newspaper ballyhoo was about the splendid accomplishments and fine work of the enrollees, and the kids' praises were punctuated by millions of acres of this, that, and the other they had covered. They even printed bulletins full of enrollees' pictures telling what fine workers they were and what a whale of a big fine job they had done, -- but the Foreman is hardly mentioned. No one ever passes out any credit to him. He is taken for granted. He has become the CCC's forgotten man.

Usually he is married, with a wife and sometimes several youngsters, and he lives pretty close to the belt. His government check comes every month and it's a welcome sight, but in some cases he never knows when to expect it. One month it may come on the 10th, the next month it may be the 20th, and it has happened sometimes he didn't get his pay check until the 10th of the second month after. He has to put off the merchant and the grocer, and sometimes they look and speak as if they thought he was giving them the run-around. That doesn't help his credit standing in the community, nor the prestige of the Corps.

Army officers, educational advisers, and sometimes project superintendents and camp mechanics, from several camps, get together for meetings, to talk over their problems and troubles. But the Foreman has to stay in camp -- he could talk over his troubles with the other foremen there, if he wanted to!

He rather likes to feel he is a part of the U. S. Forest Service, whether in a Federal or State Forest camp, but he doesn't get much encouragement in the thought. He is never sent any Forest Service publications, he never saw but one copy of the Service Bulletin and that was a special CCC number -- and that was soon worn out by all the other Foremen reading it. On Christmas, New Year's, Fourth of July, Labor Day, or Thanksgiving, he may get leave to go home to see the wife and kids, and then again he may not.

But above and back of all these petty troubles, his greatest worry is the uncertainty of his job. He never knows when his camp is going out or will move, or change its designation, and he may be dropped. Every three months this nightmare of uncertainty rides him.

On the whole, he has given conscientious service, has been on the job, year in and year out, he's had to live in a 2x4 barracks room, his "$5.00 apartment"; he has fathered, mothered, and big-brothered kids from everywhere, and of almost every color and creed; he has turned out many a finished piece of work, and done it with the most verdant of green labor, but the Big Boys up the line apparently just haven't seen him in the picture.

Just what has Santa Claus for him this Christmas? What will he get in his stocking? Maybe Santa also has forgotten him, in his coddling of the enrollees, and won't even stop at his camp.

Can't some of these things be remedied? Can't we at least see to it that the CCC Foreman has a happier New Year?

ANSWERS TO CHRISTMAS QUIZ

1. Apples, preferably red, and strings of popcorn.

2. New York and New England.

3. Germany. It was brought to America by Hessian soldiers who came here to fight for England during the Revolution.

4. Balsam fir probably comes nearest to the ideal tree - because of its beautiful pyramidal shape, fairly rigid branches, quality of retaining its needles longer than most conifers, softness of needles, fragrant odor and ability to withstand tight bundling for transportation without breaking. A number of other species of the true firs are popular in various sections of the country for the same reasons.

5. Around 250,000 annually, or about 2 percent of the total used in the Nation.

6. Loss of moisture either because of too long a time between cutting and use or because of the dry heat of the room in which they are set up. The simplest method to keep the tree fragrant and green is first to make a fresh clean cut on the bottom and then place the tree in water or wet sand, replenishing moisture as necessary.

7. According to legend, holly was used to make the crown of thorns which was placed upon Christ's brow. It became known as "Christ-thorn," or "Christdorn," then as "holy" tree, and later by its present name.

8. Delaware and Maryland.

9. No - only the female of the species.

10. Of blossoming age, at least five years old.

11. Mythology attributes the idea to the Scandinavian Goddess of Love.

12. Oklahoma.

13. Well, they say the Scandinavian Love Goddess decreed that whoever should pass under the mistletoe should receive a kiss, but with no specific mention of the ladies.

9
F76W

LIBRARY
JAN
U.S.

SERVICE BULLETIN

Contents Confidential

Vol. XXIII No. 26 Washington, D. C. December 26, 1939

CONSERVATION ACTIVITIES WITHIN DEPARTMENT OF AGRICULTURE

(From an address by Secretary of Agriculture Henry A. Wallace at the annual meeting of the Association of Land Grant Colleges and Universities at Washington, D. C., November 17, 1939)'

The Department of Agriculture's active interest in conservation goes back nearly 35 years to the time when "Tama Jim" Wilson was Secretary of Agriculture. Just the other day my attention was called to the far-seeing vision of Secretary Wilson, as expressed in his letter to Gifford Pinchot, then head of the Forest Service, with instructions concerning the policies to be followed in managing the National Forests. In this letter, dated February 1, 1905, Secretary Wilson said, in part:

"You will see to it that the water, wood, and forage of the (forest) reserves are conserved and wisely used for the benefit of the home builder, first of all, upon whom depends the best permanent use of lands and resources alike. The continued prosperity of the agricultural and livestock interests is dependent upon a permanent and accessible supply of water, wood and forage, as well as upon the present and future use of these resources under businesslike regulations enforced with promptness, effectiveness, and common sense."

Not only in the Forest Service but throughout the Department of Agriculture there has been, from that day to this, a deep and continuing interest in conservation. This has been shared and supported by the land grant colleges, the farm organizations, and millions of individual farmers. It is not too much to say that agriculture has led the Nation in practical service of the conservation ideal.

With the launching of the great national farm programs in 1933 and succeeding years, this interest in conservation was greatly intensified. ***

To bring about better coordination in our conservation efforts, several definite measures have been taken.

One was the appointment in 1935 of a coordinator of the land-use programs in the "dust bowl" area of the Southern Great Plains. This was followed by a similar step in the Northern Great Plains in 1938. The coordination of work in the Great Plains has resulted in modification and improvement of the various action programs to point them all in a common direction. Farm practices found to increase soil blowing are being gradually eliminated or changed. Progress has been made in restoring to grass much land which has given serious trouble. This is being done through Government purchases and development of the worst land, through the restoration land program of the Triple-A, through the farm reorganization loan program of the Farm Security Administration, and through local tax adjustments.

One important conservation activity in the Great Plains area has been the Prairie States Forestry Project, otherwise known as the Shelter Belt, in which farmers in cooperation with the Forest Service have planted shelter strips of trees and shrubs. Since 1935, 125 million trees have been planted in strips 100 feet wide and totaling 11,000 miles in length. Some of the poplars are already 35 feet high. These 125 million trees have brought new hope to thousands of families in the Great Plains. Not only do these trees help protect crops, but they are providing recreation and restoring bird life in a vast region of our country. As Mrs. Roosevelt recently brought out in her newspaper column, the Shelter Belt project, once an object of scoffing and scorn on the part of doubters, has become generally recognized as an invaluable asset.

The Great Plains was perhaps most in need of a coordinated program. But we recognized that this need was general. As a result, in 1937, we set up in the Department of Agriculture the Office of Land Use Coordination.

Then, a year ago, we carried out a far-reaching reorganization of the entire Department. This was done to facilitate the work of farmers and agencies serving farmers in carrying forward the cooperative land-use planning program. ***

For the past month many of us in the Department have been re-studying every legislative authority and all programs to determine just how we can obtain a greater conservation result from each dollar expended and each day of work. We have done so from two points of view: first, what is administratively possible under present laws and appropriations? and second, what further may be required that will call for reports and recommendations to Congress?

Within a few weeks we shall announce specific changes in the agricultural adjustment, conservation, rehabilitation and related programs that will concentrate our effort still more truly on the conservation of land resources. I can indicate them, at least in a general way, to you now. ***

Our first administrative action within the Department, has been to call upon the action agencies to participate to the fullest ..... in the local planning work. The next step is to help carry out those plans or, if for any reason the precise recommendations can not be met, to explain fully why not.

The Triple-A can make some improvements in the program for next year, and more in succeeding years. An increased proportion of the available funds will be used for carrying out soil-building practices and use of materials as grants-in-aid for such practices will be expanded. More definite performance of soil-building practices -- especially those not normally followed -- will be required by State and local committees. At least a start is being made toward an effective farm woodland improvement program. ***

The Soil Conservation Service, in cooperation with Extension, can give more technical assistance and training to the Triple-A and the Farm Security Administration. Closer coordination can be obtained in the range activities of the Soil Conservation Service, Triple-A, and Forest Service in the Western States. In its land utilization program, the S.C.S. can, so far as possible, make land that is submarginal for cultivation available to nearby operators of good land, so as to provide them with needed pasture and round out their farms to an economic size for conservation farming.

The Farm Security Administration can do a great deal to aid the cause of conservation through its rehabilitation program. Every farm and home management plan -- the basis of a rehabilitation loan -- can contain at least those conservation practices necessary to the maintenance of the soil resources of the farm. The same is true of the tenancy program. ***

The Forest Service will soon present a broad national program to the Joint Congressional Committee established at the request of the President. Under existing authority, the Forest Service may be able to give more assistance to the Soil Conservation Service and to State extension and forestry agencies, in promoting sound farm forestry programs. We are exploring other possibilities for restoring unproductive farm woodland and other forest lands. If such restoration and proper forest management can be accompanied by adequate market outlets -- perhaps through cooperative marketing associations -- the forests and the industries they nourish may give both increased farmer income and increased local employment.

The Farm Credit Administration can be helpful. Lands not protected from wind and water erosion are a bad credit risk. Also, submarginal lands acquired by foreclosure should not be resold to private individuals who by economic necessity will be compelled to continue soil destruction.

We are strengthening the watershed flood-control organization of the Department. The land phase of flood control might, in the long run, prove to be our most complete and extensive conservation effort.

Considerable thought has been given to the possibilities of developing a publicly financed conservation program that would involve employment of surplus rural labor. This idea is only in the discussion stage.

All these suggestions for improving our conservation work need the understanding and support of the entire conservation army. ***

The truth is that this Nation's need is for a master conservation plan -- a plan to save our natural resources that is conceived with realism and prosecuted with patriotic fervor; and a plan to restore human resources as an expression of a country's concern over the people who live in it. ***

This is our opportunity to shape our destiny, to make our country as lovely and productive as we found it, to make it a "chosen land" where, no matter what destruction may be wrought in other countries, our own civilization may be sheltered and secure.

SHOULD LAND GRANT RAILROADS BE RELIEVED OF CONTRACTUAL OBLIGATIONS BY WAIVER OR EXCHANGE?

By L. F. Kneipp, Washington

To aid their construction, certain railroads received from the United States approximately 132 million acres of lands; one-fourteenth part of the entire land area of the 48 States. Almost 20 million acres of such granted land is still owned by certain of the railroads to which it was granted, or by subsidiary corporations. Cash receipts from the 112 million acres disposed of financed or defrayed much of the cost of constructing the railroads.

Many of the grants were conditioned upon provision by the railroad of transportation service to the United States, without charge or at fractions of the regular tariff rates. The Act of June 7, 1924, changed these various provisions to a uniform provision that Federal payments to land-grant railroads should not exceed 50 percent of the regular tariff for similar services. Under this provision the savings to the United States approximate $7,000,000 per year, and have been as high as $10,000,000.

The railroads freely confess that this provision is a legal and binding contractual obligation. Nevertheless, they are endeavoring to have the United States waive a legal right of which the reasonable capital value would be about $150,000,000 on the grounds that services hitherto furnished the United States have fully compensated for the value of the granted lands, and the further grounds of the need for placing the railroads in sound financial condition.

Four bills which would relieve the railroads from the present contractual obligations are now before the Congress, to wit, S. 2009; S. 1915; S. 1940; and H. R. 4862. As passed by the Senate, S. 2009 did not contain the relief section, which was inserted by House amendment prior to passage by the House. S. 1915 and S. 1990 have not yet been reported to the Senate. H. R. 4862 has been superseded by the House amendment and passage of S. 2009.

The Secretary of Agriculture, by letters to the Chairmen of the Senate Committee on Interstate Commerce and the House Committee on Interstate and Foreign Commerce, strongly recommended that the relief of the railroads from the half-rate contracts be conditioned upon the restoration to the United States of all grant lands still owned by the railroads or their subsidiaries and not used or needed for the operation of the railroads.

The lands remaining in railroad ownership or control are, in the main, the least salable and valuable residues of the original grants; but possess large public service values. Almost 4 million acres of them are within the boundaries of National Forests. Other considerable acreages form integral parts of other types of Federal reservations. In time, it will become necessary for the Federal Government to acquire much of such land to serve public interest and welfare.

Equity dictates that the taxpayers of the Nation should not be subject to ultimate heavy costs to acquire such lands if they waive to the owners of such lands other contractual rights of much greater monetary value. In that circumstance it would be equitable and logical to require a quid pro quo.

The recommendation of the Secretary of Agriculture is not reflected in the pending bills. S. 2009 would require the waiver of pending claims for satisfaction of land grant deficiencies, but confirms in the railroads all grant lands to which they have established title. Neither S. 1915 nor S. 1990 makes any provision for offset to the waiver of contractual rights.

The pending proposal gives the land-grant railroads an inequitable advantage over the taxpayers of the Nation. It is hoped that before any of the pending bills are enacted, they will be amended to provide that no land-grant railroad shall be released from its contractual obligations unless or until it restores to the Federal Government all granted lands still under its control and not used in the operation of the road.

"MORE ON IN-SERVICE TRAINING"

By E. W. Loveridge, Washington

The discussion published under the above title in the September 18 Bulletin and also the two later discussions in the October 16 Bulletin all have interested me very much. In our revised training program sent to the field for comment last August, we provided for "Orientation Training" such as these articles propose.

However, no plans have yet been made. In this planning we would like to have your help. What further suggestions have you? Be as frank as you like, and make your suggestions anonymous if you like, but for the good of the new girls yet to come, please let us know what you think should be done and how. Send your suggestions direct to Peter Keplinger, Forest Service, Washington, D. C.

WATERSHED GOVERNMENT

By Benton MacKaye, Washington

Mr. Charles A. Connaughton, Director of the Rocky Mountain Forest and Range Experiment Station, writes in the October 30 number of the Service Bulletin an article entitled "Soil Conservation Districts in Flood Control?" This takes issue with my article in a previous number on "States Rights & Conservation Districts". I appreciate keenly Mr. Connaughton's comments and plead guilty to the weakness which they unearth. I hold this to be a weakness not of my original suggestion but of its manner of presentation. So here is trying again under a more specific title.

My article suggested the expansion of the soil conservation district to include forests and waters, and the use of such expanded district as a factor in flood control. Mr. Connaughton's holds that this is not practical; that upstream and downstream engineering cannot be separated; and that the purposes of flood control and of soil conservation districts are basically different.

In time we might be able to disentangle our respective meanings of certain critical terms here used, such as "practical", "upstream and downstream", and "basically different"; and thereby come closer to general agreement than appears from brief discussion. But Mr. Connaughton seems to sum up his contention in one statement which appears wholly unclouded by questions of definition. "The upstream landowner", he says, "may logically refuse to vote regulations upon himself to protect someone that may be even unknown and unseen."

So fully do I agree with this statement that I suspect we would agree much further had my own original presentation been made clearer. Hence this second attempt.

- - - - - - -

Suppose a watershed 200 miles long and averaging 30 miles wide, with forest around the edges, next a belt of grassland, with fertile bottoms, and a broad flood plain on the lower reaches of the main river. Nobody lives in the watershed but folks are about to enter. Question— How, in ordinary common sense, should these folks use the land and get along with the river?

Here is a program:

(1) Divide the lower flood plain in two zones: (a) to be kept free of damagable structures, and (b) to be occupied and protected from super-floods.

(2) Manage the cuttings in the forest area so as to maintain a continuous growth, cover, and litter (i.e., practice forestry).

(3) Control grazing on the grassland and do soil-conserving farming on the cropland so as to maintain a protective sod all around (i.e., practice real agri-*culture*).

(4) If measures (2) and (3) are sufficient to protect flood zone (b), call it a day. If not, then put in storage reservoirs, as needed, to protect it.

Here is the gist of our long-pondered conservation program, leaving out power development and the recent additions of city and highway planning.

But this is *not* what we do (we government people). Because we cannot. It is not quite so easy. Folks are already *in* the watershed — with towns built in flood zone (a) as well as (b); with the forests depleted (in growth, cover, and litter); with grasslands hacked by overgrazing, and croplands carved by agri-*mining*.

So what *do* we do? First we forget to make any serious distinction between flood zones (a) and (b); then we ask a hundred forest owners to please practice forestry, and we ask a thousand farmers to please practice agri-*culture*.

Next we go upstream with a double flood control problem — to protect zone (a) as well as (b). We locate storage reservoirs. But we don't *ask* the farmer this time to do something, we *tell* him to do it. We tell him to chase himself off his own farm and do it "quick" — this year. *Downstream* zone (a) demands it and there's no *upstream* "vote" about it.

Now what did I attempt (so badly) to say in my previous article? Simply this:

Let's have, wherever needed upstream, a soil conservation district (or a forest district, or water district, or flood control district, or whatever other name we want to call it — *district*). In other words, let's go upstream and salute the upstream land owners thus:

"Gentlemen, why don't you get together on this land and water and flood and whatever you call it question? Just as other folks do on *their* questions — the business people and the wicked labor unions, and even you farmers yourselves when it comes to selling stuff. Form a "land union" (if you don't want to call it "district").

"You hundred forest owners there, get together somehow and practice forestry, and we government fellers will help you. And the same to you thousand farmers as to real agriculture.

"And then get at this storage reservoir business. We know how you feel about those downstream birds who insist on living in flood zone (a) as well as (b). We don't ask you to "vote" to protect them, -- we ask you to "vote" to protect yourselves. For you need flood control right up here. And the more you do up here the more it helps out down below".

- - - - - - - -

Such is all I meant by a "conservation district" - something to help the upstream folks to help themselves. Now -- if Uncle Sam says that there must be, in addition to all this, more storage space, in order to protect flood zone (a) as well as (b) -- that is of no concern to upstream districts nor upstream people except just this:-- that the more reservoir storage space they vote to give to themselves, the less space will they be told to give up for others "unknown and unseen".

And so I return to my original suggestion for a "watershed form of government" -- something wherein the rights and interests of the "locality" (the locally-governed tributary watershed) may have a better show than now in reckoning with the interests of the "generality" (the nationally-governed total watershed).

A PROTEST

The following note has been received by the Editor:

"We moss-covered smokechasers out here in the brush don't often complain about the things said and done away off in Washington, but we do register a kick on your 'Domino' cigarette article in the October 30 issue.

"For two years we have spent a lot of our time painting signs, writing appeals, and making speeches to the public, to eliminate 'flipping'. So vigorous have been our efforts that a 'flipper' in this Region is now looked upon as something in the worm family. A violator of our smoking regulation, when brought before the Court, willingly agreed to plead guilty to all charges and to pay all fines but he wanted it definitely understood and written into the record that he was not a 'flipper'.

"Now, according to the article in your October 30 edition, Domino smokers will be instructed 'Flip it away'.

"Of course, the notice will caution the flipper to 'be sure it's dead out' before he flips. That reminds us of the excuse, 'I thought it wasn't loaded'."

(Signed) CLAYTON S. CROCKER, R-1.

E. W. TINKER NAMED EXECUTIVE SECRETARY AMERICAN PAPER AND PULP ASSOCIATION

E. W. Tinker, Assistant Chief in charge of State and Private Forestry, is resigning to accept the position of Executive Secretary with the American Paper and Pulp Association. He will assume his new duties in New York on January 1.

Mr. Tinker entered the Forest Service as forest assistant on the Black Hills National Forest in South Dakota in 1915, following his graduation from the forestry course at Michigan State College and the Yale Forest School, and after several years' experience in forest operations with the Canadian Pacific Railroad. He served successively as Supervisor of the Arapaho National Forest in Colorado, the Bighorn National Forest in Wyoming, and Chief of the Division of Lands in the R-2 regional office. His interest in forestry developments in the Lake States led to the establishment of the Lake States as a new National Forest Region in 1929 and his appointment as Regional Forester of that Region. In 1936 he was promoted to the position of Assistant Chief in charge of the divisions of State and Private Forestry.

As executive secretary of the American Paper and Pulp Association, Tinker succeeds Charles W. Boyce, and thus becomes the fifth technically trained forester to hold the position. Tinker will have charge of coordinating the activities of 22 associations in the United States concerned with pulp and paper production, and representing investments of more than a billion dollars.

A LETTER OF CONDOLENCE

Portland, Oregon
September 29, 1939

Mr. Ed Birkmaier, Supervisor
Malheur National Forest
John Day, Oregon

Dear Ed:

The papers say you have been promoted and that you are going to Washington to be Walt Dutton's assistant.

I suppose I should offer my congratulations, but whenever I try to compose my thoughts, sympathy gets the better of me and I can find no good reason why you should be congratulated.

When I think of Ed Birkmaier in Washington, stuffy, humid, sticky in summer and bitterly cold in winter. When I think of him without his beautiful horse and prize saddle being jostled about by crowds of selfish, scheming, tricky humanity in an atmosphere filled with intrigue and deceit. When I think of him in a flat, low-lying country so filled with buildings there is not the slightest chance to see out. When I think of him who has lived where the towering mountains touch the sky, where the branches of the swaying pines toss in the wind-swept, rain-washed air of the timbered hills and great open spaces; where the grouse whir from under foot, the deer stand and watch from the hillside and the coyote lazily lopes across the landscape--when all of these things flit before my mind's eye; every reason for congratulation is swallowed up in the greater thought of sympathy.

Ed, why must they do this to you? Oh! I know all about the promotion, the honor, the greater opportunity for advancement, the larger salary check; but with them will come added responsibility, less freedom of action, less opportunity to call your soul your own and increased expenses that will make that salary check last about as long as the proverbial snowflake on the river or that equally proverbial snowball in that fabled region of firey furnace fame.

You can't do it, Ed. You will smother to death. You will spend hot summer nights tossing on top of sheets wet with perspiration, trying to find a cool spot for your naked, tortured body and cursing the men who picked such a satanic spot for the Nation's capital. You will long for the music of the wind singing in the pines, the glint of the sunshine from some high mountain lake, the murmur of the glacial streams, the smell of the sage and the howl of the coyote from across a flower bedecked mountain meadow. Ed! You can't do it.

But I suppose some good westerners must be sacrificed upon the altar of the great god of efficiency and I presume you must serve as the present victim. My last remaining hope is that you will not go until after November first and that we will have one more glorious week together in our beloved hills. I shall await your reply with unconcealed anxiety. No one with whom I have talked here seems to know when the change is to be made effective.

And so, therefore, in this your hour of greatest honor--if not of triumph, I offer my deepest heartfelt sympathy.

Sincerely yours till you can return to the land of the singing pines and the howling coyote,

(Signed) Ed F. Averill

"SAMPLE TESTS" IRK MERIT UNIT

By Jerry Kluttz, in "The Washington (D.C.) Daily News" December 12

Not so funny to the Civil Service Commission is the circulation of "sample tests" among Federal employees here that lampoon the intellectual emphasis placed on Civil Service examinations.

The "sample tests" have a short but sensational history. About 10 days ago, it seems, several witty New Yorkers distributed 250 of the "tests" among their fellow city employees. The "tests" went over with such a bang and there was such a great demand for additional copies that they were mimeographed by the thousands in several city departments. Copies soon reached Federal employees in New York and now copies are cropping up in several departments here.

The burlesquing is done in the form of Civil Service examination papers. The circular explains that 49,361 are taking the test and that there are three vacancies. The notice reads:

"If you fail, however (and you probably will), this does not indicate that you are not intelligent. It just means that we gotcha where we wantcha."

A question is clarified in this manner:

"This question requires no thought. Choose whichever answer appeals to your taste. If you have no sense of taste, just feel your way around a bit and pick out the least correct as well as the most inaccurate. Your choice must not be motivated by any political prejudice or partiality."

The question:

"A clerk who works just as well when the superior is absent as present, who does not fritter time away with idle gossip, plans his work and uses method in performing his tasks, finds time to do something constructive during dull moments, attends to business and never works half-heartedly- such a clerk would best be described as (a) a person to be distrusted, because the normal person is not so constructed; (b) a paradox who would do better for himself in a place other than the public service; (c) an anomaly; (d) a spy."

Other samples:

"If 30 days hath September, April, June and November, and if all the rest have 31, why does February have 28? (a) Because Leap Year comes once in four years. (b) Because sometimes February has 29. (c) What's the difference? We can't all be perfect. (d) Because it's colder in February. (e) The President said so.

"On observing a very serious fire, in an occupied tenement, at night, a pedestrian should first: (a) Call up the mayor; (b) mind his own business; (c) try and find a cop; (d) be nonchalant - light a cigaret; (e) try and not get burned up about it."

THE EDITOR DISCOVERS

An opportunity was afforded the Forest Service recently to express its fondness and respect for its first Chief - Gifford Pinchot. The circumstances were as follows:

Shortly before Mr. Pinchot's recent serious illness, Mrs. Pinchot requested and was given authority to purchase a regular Forest Service uniform for her husband. (Incidentally, the approved policy states that such authority may be extended to any former Chief of the Forest Service). Nothing was said by Mrs. Pinchot about the purchase of a hat. Several members of the Washington Office got together and decided that it would be nice to present GP with a hat to go with his new uniform, making the purchase out of the two-bit fund so that all members of the Service would have a part in the present. The matter was taken up with Mrs. Pinchot, who stated that she was sure GP would be delighted with such a gift from members of the Service.

At a special staff meeting, on November 29, which was attended by all the old-timers who could be got together on short notice, a 4-X beaver standard Stetson hat was presented to GP by Mr. Silcox with the statement, among others, that the hat was a token of admiration and respect from all sectors of Forest Service personnel both in the field and in Washington.

In appreciation, Mr. Pinchot has written the following letter to a number of the old-timers in the Washington Office:

"When you and the other Old Timers gave me that hat the other day, you gave me something that never came out of the Stetson factory and which I shall never forget. I was more delighted than I can easily say. The whole thing came as a complete surprise.

"I want you to know how much I value the hat and how much more I value the good feeling that it symbolized. Old friends are best.

"Every good luck to you. I shall think of the old crowd every time I put on that hat, which will not be seldom."

- - - - - - -

"Forest Fires Are Killing Our Game" by Arthur Grahame is the lead article in the January issue of "Outdoor Life." The author, a staff representative of the magazine, vividly describes the damage forest fires are doing to game and fish and makes a strong plea for increased protection under the Clarke-McNary Act for State and privately owned timberland and for increased facilities for protection of the National Forests. He calls upon sportsmen to "Wake Congress Up ! " by writing to "your Senator and your Congressman" about it.

"Forest Service officials...are working hard and effectively," the author says, "at their double-jointed job of protecting the forests (which in turn protect watersheds) and of making our National Forests happy hunting grounds for sportsmen and for all other wildlife lovers." What can sportsmen do to help, he asks, and proceeds with some concrete suggestions.

The photographs used in illustrating the article are from the Forest Service collection and are attractively displayed in two colors - black with red highlights - to bring out the fires.

- - - - - - -

One thousand new CCC camps of a different sort are forecast by Harlan Miller in his "Washington (D.C.) Post" newspaper column for December 4. His paragraph states: "At the War Department plans are being contemplated for 1,000 new CCC camps of a different sort, where the boys would receive two hours military drill daily along with their work. These camps would be apart from the regular CCC camps where no military drill is authorized. There, enrollees would volunteer specifically for the drill camps, and get $8 monthly, like the others, but not the $22 monthly relief for their families.

"Such new camps with drill will avoid the possible charge that only poor men's sons are being trained for war. At 1,000 camps some 200,000 boys could be trained every six months or so (and it might be a grand thing for their health if men in their 30's were eligible, too)."

We know of no basis for Mr. Miller's above suggestion.

- - - - - - -

"GREEN KINGDOM"

The life of a Forest Ranger is the subject of a new book by William Atherton Du Puy, entitled "Green Kingdom." This is the first of a series of vocational guidance books to be published by Row, Peterson and Company of Evanston, Illinois, which will probably include some 100 books.

Mr. Du Puy has written an interesting story of the work and life of a Forest Ranger, as well as describing the qualifications necessary for success in the forestry profession. It should dispel any mistaken impressions the reader might have had that the life of a Forest Ranger is primarily one of hunting and fishing. As Mr. Du Puy puts it: "The fact that one is a lover of nature, is fond of fishing and hunting, has gone on a canoeing journey through chains of wilderness lakes or on horseback junkets from dude ranches, is hardly a sufficient test of a young man's fitness for a career in forestry. Meeting its emergencies calls for sterner stuff... The forestry profession requires men of as high a type as does the practice of law, or medicine, or engineering."

Considering the size of the book, 64 pages, Mr. Du Puy has been able to weave into his story of the Forest Ranger an unusually large number of pertinent facts regarding forestry practices and conditions in different parts of the country. The book is very attractively illustrated with appropriate drawings as frontispiece and above chapter headings, the photographs used in illustrating the text being printed by the off-set method. Most of the pictures are from the Forest Service collection. The cover is in dark green cloth with a four-color paste-on illustration of a Forest Ranger and pack horse.

DR. DE BLUMENTHAL DIES

Dr. de Blumenthal, Senior Translator and Head of the Translation Unit in the Washington Office, died on December 2. He had been confined to the hospital since early in November and his condition was showing improvement when the end came suddenly. True to his characteristic interest and enthusiasm in life he passed away while reading the morning paper.

Born in Russia in 1865, Dr. de Blumenthal was educated at the Imperial University of St. Petersburg and Bonn University, Germany. He came to this country in 1894 and started at the bottom of the ladder, selling newspapers on the streets of a small Illinois town. Soon, however, his ability and training in languages became known and he joined the faculty of the Culver Military Academy. Later he returned to Russia and practiced law in Moscow until 1918 when, due to the revolution, he and his family were forced to flee across Siberia into China. He returned to the United States and since has taught languages in many schools and colleges. In May 1934 Dr. de Blumenthal came to the Forest Service and under his leadership the Translation Unit soon became one of the most reliable and most respected translating organizations in Washington.

Dr. de Blumenthal had a host of friends in Washington and those of us who were fortunate enough to have had the opportunity to work with him soon learned to love and respect him. One of his closest friends in the Service has truly said "to have known him was an experience".

WILLIAM W. MITCHELL

#